HEALTH PROFESSIONALS’ DECISIONS ON PHYSICAL RESTRAINTS

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HEALTH PROFESSIONALS’ DECISION MAKING PROCESS ABOUT THE USE OF PHYSICAL RESTRAINTS IN INPATIENT PEDIATRIC PSYCHIATRIC UNITS IN MADRID

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DEDICATION

To all children, families and health professionals who suffer the consequences of violence in psychiatry. Thank you God for showing me that life is about giving away and enjoying the way towards Truth. Mom and dad, you are always within me and with me; thanks to you I am. Sister, this is also yours.
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My heartfelt thanks to my sister, for always believing in me and stand by me. I extend a loving thank you to my good friends for showing me who I am and help me not to get lost on the way.

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ABSTRACT

**Background.** The use of physical restraints (PR) in inpatient pediatric psychiatric units (IPPU) is a highly prevalent clinical practice extended throughout the world. The high rates and negative consequences of PR are particularly serious with youth, and this practice has also important ethical, legal and human rights implications. Importantly, decisions about PR use are not only frequent but are also inconsistent, which suggests that existing PR protocols and standards may not be sufficient to regulate this practice in accordance to human rights standards. To date, health professionals’ (HP) decision-making process about PR have not been explained in its complexity, and to what extent existing PR protocols are useful to guide PR decisions is unknown. The purpose of this study was to explore HPs’ decision making process about the use of PR in IPPU.

**Methods.** Qualitative approach, with phenomenological and ethnographic strategies. Setting: IPPU in Madrid (Spain). Sampling: Maximum variation sampling according to professional category and range of experiences. Data collection: In-depth semi-structured interviews, participant observation, other data sources (hospital documents and focus group transcripts). Data analysis: computer assisted qualitative data analysis package (ATLAS.ti.7) and the “Listening Guide Method”.

**Findings.** Factors related with restraints depend on the contain capacity of the contextual matrix (inpatient psychiatric unit). Regulatory elements (containers) are also variable elements, which leads to uncertainty-insecurity among health professionals. Hence, health professionals use restraints as a “secure” or “safe” element despite it may cause also harm. Variability related with attributes (body and mind) cannot be contained. Hence, in order to control behavior, professionals need to handle or restrain the patient. Persons are not only affected by factors, but
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they are also porters of factors. Hence there is no way not to influence the scene. Decision process about restraints use mainly depend on the reference framework and the information acquisition. Without reference framework it is not possible to make decisions. Hence novice professionals depend on experts or “instinct” to make decisions. Development of a reference framework is an individual and collective process. There is diversity among each professional but also unanimity as a team. Information transmission between times, spaces and people may leads to voids and gaps of information. Hence, some decisions may be adjusted to the current situation, but other might be unadjusted decisions as they were taken in a different place and time to the situation. Restraints guidelines may not reflect the reality of restraints decisions to be able to help professionals improve their decision-making process.

**Conclusion.** PR decisions are context dependent, culturally shaped, interpersonal, emotionally intense and morally charged. Hence, policy and guidelines may need to address the complex reality that embrace PR events and the particularities of PR use with minors.
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CHAPTER 1: INTRODUCTION

Statement of the problem

The use of physical restraints (PR) is a common and controversial practice, and is still used in the majority of psychiatric facilities to manage patient’s agitated behavior (De Hert, Dirix, Demunter & Correll, 2011). This clinical practice is controversial because PR is a technique with questionable therapeutic benefits, proven to have harmful consequences, and interfering with personal liberty. In addition, no scientific evidence can be found that guides decisions about PR use (Day, 2002) and health professionals (HPs) have generally shown “a collective dissociation” (Kennedy & Mohr, 2001, p. 27) with respect to its use. Due to this controversy, many efforts have been made to reduce or eliminate the use of PR, however, none of them have been proved to be successful and the field of psychiatry is still pervaded by coercive measures that put the mental health professionals “on the spot” (Koukia, Madianos, & Katostaras, 2009).

Significance

In recent years, there has been an increase in the levels of violence in health care settings (Strout, 2010), which have heightened awareness about the use of physical restraints (PR) in the majority of facilities that take care of mental health patients (De Hert, Dirix, Demunter & Correll, 2011). Particularly in mental health settings, most units apply restrictive measures at some point (Goren & Curtis, 1996), with an upward trend in the rate of PR use (Bower, McCullough & Timmons, 2003). Moreover, PR is a practice used with patients in all age groups. Significantly, while rates among psychiatric adult populations range from 4% to 44%, youth with mental disabilities are at a much higher risk for PR (De Hert, Dirix & Correll, 2011). In the US, studies indicate that PR rates in youth range from 28% to 60% (Bower et al., 2003), and other
research estimates that the rates in pediatric units are six times higher than in adults (LeBel, Stromberg, Duckworth, Kerner, Goldstein, et al., 2004). Despite the fact that studies from Europe and Australia (Fryer, Beech & Byrne, 2003; Sourander, Ellilä, Välimaki & Piha, 2002) have found lower rates than in the US, the reasons for this difference remain unknown and PR is a practice which extends throughout the world (Drew, Funk, Tang, Lamicchane, Chávez, et al., 2011). Unfortunately, the lack of research and inaccurate data in the literature are common themes. This dearth of research is also found in Spain where unreliable data on the rates and characteristics of PR use exist (Ministerio de Sanidad, Política Social e Igualdad, 2011). Only De las Heras et al. (2005) estimated that PR use exists in more than 25% of youth admissions, and the PR protocol of the General University Hospital Gregorio Marañón (2010) stated that while 10% of adults required PR in 2007, this practice was used in 17% of adolescents in the same year.

In addition to the high rates of PR use, the negative effect of PRs has increased concern regarding the frequent and widespread use of this practice. PRs have adverse consequences in youth, given the serious emotional and physical effects. It is important to note, that although the harmful consequences of PR affect adult and youth populations, the emotional and physical damage is even more serious for youth (Day, 2002; De Hert et al., 2010; Masters, Bellonci, Bernett, Arnold, Beitchman, Benson et al., 2002; Obertleitner, 2000). In terms of the emotional damage, PR can cause reactivation of previous trauma experiences (Mohr, LeBel, O’Halloran & Preuch, 2010; Mohr, Petti & Mohr, 2003; Strout, 2010; Reddy & Spaulding, 2010) and the coercive staff responses, such as the use of PRs for defiant youth behaviors, can cause these youth to learn to behave aggressively, becoming “coercive youngsters” (Goren et al., 1993, p. 71). Regarding physical consequences, they can include aspiration, thrombosis, asphyxia, blunt
trauma to the chest, catecholamine rush and mortality (Masters et al., 2002; Obertleitner, 2000; Prinsen et al., 2009). It has also been found that death rates among youth are disproportionately higher than in adults (Bush & Shore, 2000; Weiss, 1998). In addition, numbers related to PR are underrated and those authors who had investigated fatalities related to PR, had to search in the media, as news about youth’s deaths were not present in scientific literature (Mohr, 2006; Nunno, Holden & Tollar, 2006).

Another important aspect to consider about PR is that this intervention is practiced within a milieu where patients and caregivers interact. As such, health professionals (HPs) are also negatively affected by PR use; in particular, child psychiatric nurses perceive more need for PR than other colleagues (Selekman & Snyder, 1995). Different studies have reported on injuries, burnout and low job satisfaction (Koukia, Madianos and Katostaras, 2009) that may be related to the conflict and “moral stress” (Regan, 2010, p.216) that HPs feel when they use PR (McCain & Kornegay, 2005; Bigwood & Crowe, 2008). Significantly, this conflict is present for most HPs despite the finding that only a minority seem to be aware that death is a possible consequence of PR use (Stilwell, 1991). Another relevant consequence that PR use has for HPs is the risk of legal litigation. Although this point will be further explained in following sections, the recent implementation of a safety culture in health care (Maloney, Ellis, Garland, Palyo, & Greene, 2012) has lead to a consideration of PR use as an “error, not a treatment” (California Senate Office of Research, 2002). This new PR conceptualization may entail legal consequences for HPs when using PRs; because even though not all PR interventions might be susceptible to legal litigation, if PR is not used according to PR protocol, it may be considered an “error” or “inappropriate”, which in turn may put HPs at risk of being accused of malpractice.
Initial statement of the purpose of the study

As previously discussed, the use of physical restraints is both common and controversial. The controversy surrounding PR has gone beyond the scope of practice and it has generated an ongoing debate at the scientific, ethical and legal levels thus questioning the advisability of PR use. This conflict stems from the fact that the use of PR is a technique that aims to protect the patients or others from harm but it interferes with personal liberty and these decisions are not backed up by scientific results (Day, 2002). Several theories, such as attachment, psychodynamic, behavioral and social learning have tried to explain the theoretical bases for the use of PR but none have been evaluated (Dean, 2002). Therefore, the debate about whether PR can or should be avoided altogether is still open. Overall, the number of studies that approve PR appear to double those which oppose their use. However, even those opposed consider that the use of PR should not be eliminated completely as it might be necessary in certain situations (Dean, 2002; De Hert et al., 2011; Kennedy & Mohr, 2001).

The most common argument for the use of PRs is that their use is an adequate intervention in case of disruptive and/or dangerous behaviors when less restrictive interventions have been ineffective (Dean, Duke, George & Scott, 2007; Delaney, 2005). Furthermore, HPs’ general opinion is that PRs are necessary to prevent and treat aggressive or difficult behavior (Bower et al., 2003). On the contrary, the possible serious consequences to both children and HPs, together with the lack of empirical evidence to support PR as an effective measure (Bower et al., 2003) are the main arguments against PR use as part of psychiatric treatment (De Hert, Einfinger, Scherpenberg, Wampers, & Peuskens, 2010; Masters et al., 2002; Obertleitner, 2000; Prinsen, E.J. & Van Delden, J.J., 2009).
Due to this concern, there have been many efforts to reduce or eliminate the use of PR; however, studies about PR reduction programs have not been proved to be successful (Azeem et al., 2011; Donovan, Plant, Peller, Siegel & Martin, 2003; Larson, Sheitman, Kraus, Mayo & Leidy, 2008; LeBel, Stromberg, Duckworth, Kerzner, Goldstein et al., 2004; Martin, Krieg, Esposito, Stubbe & Cardona, 2008; Schreiner, Crafton & Sevin, 2004; Singh, Singh, Davis, Latham, & Ayers, 1999) so the further reduction and eventual elimination of this practice seems still to be a difficult goal (Azeem, Aujla, Rammerth, Binsfeld & Jones, 2011).

Thus, HPs working in inpatient psychiatric wards are more likely to experience situations that involve difficult and crucial decisions, like using or not using PRs. Decisions regarding PR are complex because they have implications at the clinical, ethical and legal levels; however, there are no unified regulations that clarify whether PR use is legal, ethical and adequate, and if so, for which cases (Steel, 2002; Moylan, 2009). This lack of consensus and clear guidelines are left up to each HP to determine when and how PR use is “appropriate” (Steel, 2002). This may explain why decisions to use PRs are inconsistent and are made arbitrarily. This variability (Bower, McCullough & Timmons, 2003) is particularly worrying given that this practice may cause emotional and physical harm, and might be in conflict with human rights principles (Janssen, van de Sande, Noorthoorn, Nijman, Bowers et al., 2011). Likewise, such inconsistency in PR decisions may indicate that PR protocols are not available or effectively implemented.

In addition, there is little research to inform about the development of PR guidelines that may help HPs to decide what is PR appropriate use. In general the literature demonstrates the absence of a clear definitional framework together with a wide disparity in, methodology and results, preventing a comprehensive understanding of the topic (Day, 2002). Thus, there is an evident need of knowledge (De Hert, Dirix, Demunter & Correll, 2011) regarding the underlying
rationalies that guide PR use among youth in inpatient pediatric psychiatric units (IPPU) (Sourander, Ellilä, Välimäki & Piha, 2002). In addition, previous research that examines HP’s PR decisions is limited and has mainly focused on nurses from a quantitative perspective. These studies have neglected the interactive, psychological, contextual, ethical, normative and experiential levels of PR decisions (Larue et al., 2010; Lindsey, 2009; Mann-Poll et al., 2011; Moylan, 2009). This perspective seems insufficient to tackle PR decisions, given that PR decision-making process is a complex and multifaceted phenomenon.

**Aim and Research Questions**

In order to fill these gaps, this study aimed to understand the complexity of health professionals’ (HP) decision-making process about the use of physical (PR) restraints in inpatient pediatric psychiatric units (IPPU). With the purpose of exploring HP’s decisions about PR use comprehensively, this research was tackled from a broader approach. Through a qualitative methodology, this study addressed the interaction between all actors involved in PR decisions, the underlying psychological process, the contextual factors and the personal lived experience that underlies PR decisions from an ethical perspective. Given the importance of contextualizing this topic and the even more urgent need to explore PR decisions with youth, this research focused on exploring the HP’s decision-making process about PR use in inpatient pediatric psychiatric units (IPPU) in Madrid (Spain).

Given these issues, the study addressed the following questions:

1. How do HPs describe their process of decision-making about PR use?
2. What factors affect HP’s decisions about whether or not to use PR?
3. How could current PR protocols be improved to better guide HPs’ PR decisions?
**Definition of terms**

Once the statement of the problem has been introduced, next step would be to formulate the variables in order to define the phenomenon of interest, as it is described as follows:

**Intervention:** PR use is defined as the application of any physical measure that limits the free movement of the youth in order to prevent something physical from happening or to control a behavior, regardless the duration (from the minute 0 onwards) of the event and the outcome (back to free movement within the unit, chemical and/or mechanical restraint or seclusion in a room) of the physical measure. PR use is considered in this study as a “moral action”, as it is an action that if used inappropriately, may lead to injustice, to harm or to the violation of rights (Haidt, 2001).

**Population:** health professionals (HP) who work in inpatient pediatric psychiatric units (IPPU) caring for youth under 18 years old, who are suffering an acute episode of mental health distress, that may require PR intervention. The specific professional category or position was not pre-determined and who is involved in PR decisions was explored throughout the research process. Importantly, given that PR is considered in this study as a “moral action” (Haidt, 2001), HP who decide about PR will be assumed to be moral selves (Gilligan, 1993).

**Setting:** IPPU defined as psychiatric inpatient units with locked door, available for youths that offer 24-hour assessment, treatment and security, 7 days a week (Garrison & Daigler, 2006).

**Reason:** PR are used either for medical necessity or behavioral necessity (Clark, 2005). This research only refers to PR used for behavioral necessity; it means, PR use to control behavior that might be potentially harmful to the service user or others.
**Phase:** the decision-making of HP dealing with the use of PR has been described as a trajectory occurring before (initiating phase) PR are used, during (maintaining phase) the time PR are implemented and ends after (terminating phase) PR are removed (Goethals et al., 2011; Kontio et al, 2010; Ludwick et al., 2008). In this study, the entire trajectory with its different phases will be considered a single unit of analysis.

**Philosophical conceptualization:** the focus of this study is PR decision-making as an experiential psychological process. It means, PR decision-making process is not merely a decision that HP *make*, but a decision-making process that HP also *experience*. In this regard, the underlying philosophical stance that can account for the notion of PR as *experienced decision* is phenomenological, which is a philosophy conceptualized as “the study of being human, as being in the world, being there, being present, coming into being” (Munhall, 1994, p. 15).

**Legal conceptualization:** due to the lack of agreement in PR legal definitions, for the purpose of this research proposal, PR use will be considered both as involuntary placement and as involuntary treatment.
CHAPTER II: LITERATURE REVIEW AND PRIOR WORK

**Literature review organized by topic areas**

Paucity and poor quality of research are the predominant characteristics of the literature on this topic. The literature review has consisted in a systematic and iterative process of searching and reviewing studies and documents related to PR. This process has occurred in subsequent phases starting from broader categories to narrower themes until the topic became clearer and more focused. The search strategy used three tools: first, a consultation with two librarians (one from New York University and one from the General University Hospital Gregorio Marañón); second, a computer assisted search in databases for documents in English (PubMed, PsychINFO, CINAHL, EMBASE, WEB OF KNOWLEDGE) and Spanish (CUIDEN, ENFISPO); third, a manual search reviewing the reference list from articles and documents retrieved. Likewise, the literature review has been organized in thematic areas, using different key words depending on the specific topic, combining the word “restraint” with the specific topics, as these examples illustrate: “restraints AND children”, “restraint AND professionals”, “restraints AND history”, “restraints AND factors”, etc. Following the search strategy procedure, the results from the literature review have been organized in three main thematic areas: 1) aspects related to physical restraints, 2) persons involved in PRs and 3) the decision-making process.

**Physical restraints**

**History.**

The use of PR has been considered historically as an acceptable solution to the disruptions that persons with mental disabilities have generated in society (Fariña-López & Estévez-Guerra, 2011). Hence, the current debate regarding PR is not a recent phenomena and
has occurred over centuries. In fact, PR use has always generated a controversy, being the oldest unresolved problem in institutional psychiatry remaining worldwide today (Steinert et al., 2010).

Since ancient times chains (currently PR in developed countries) reflected societal fears relating to persons with mental illness. In general terms, two opposite approaches still exist to deal with this issue: the humanitarian and the restrictive. The humanitarian approach advocates for the elimination of PR use as harmful; the restrictive approach supports the implementation of PRs as being therapeutic.

During the Middle Ages, mental illness was considered a sin, and religious organizations took care of mental patients. It was in the fifteen century, in the hospitals of Valencia and Zaragoza (Spain), where the moral treatment movement started. In these hospitals, chains were removed and occupational treatment was implemented. However, this change in mental health treatment did not last and during the Modern Ages, in the sixteen and seventeen centuries, the treatment of mental illness worsened drastically, putting persons with mental disabilities in prison, abandoned, or punished (Fariña-López & Estévez-Guerra, 2011).

In the eighteenth century, a French psychiatrist reopened the debate about the difficult balance between patient’s protection and safety and patient’s rights and freedom to choose treatment (Mayoral & Torres, 2005). Pinel’s development of “moral treatment” constituted a decisive change in history of psychiatry proposing new care of mental health patients that included a regimen of education, persuasion and reasoning in treatment. In the eighteen century, with the new enlightenment in science, belief in the power of rational thinking replaced earlier causes for mental disorders. However, for the most part of this century, insane individuals in public asylums were considered to have an incurable illness and were subjected to physical restraints, ill treatment and torture. Towards the end of the eighteenth century a new reform, “the
non-restriction movement”, started in England and changed the harsh treatment regimen in mental asylum settings by eliminating the use of PR (Belkin, 2002).

Nevertheless, these reforms were not extended uniformly throughout the world; the “moral treatment” eras of the development of psychiatry in Europe and the United States were not similar. It was not until the nineteen century that the European trend of moral treatment reached the US. Despite efforts such as those of Dorotea Dix (Gollaher, 1995) the incorporation of a therapeutic milieu in the psychiatric care in the US did not happen until after the WWII (Alexander & Selesnick, 1966). Even at that time, many people still did not adhere to Pinel’s moral treatment, keeping the custodial and protective way of treating mentally ill patients. As a result, the therapeutic milieu lost influence and the moral treatment trend declined at the end of nineteen century. As a consequence, the tendency to control patients gained predominance over the therapeutic trend and so the use of mechanical restraints and seclusion increased. Likewise, during the 20th century, the European multifactorial model did not impact psychiatric treatments in the U.S. For this reason, physical therapies have been prioritized over social therapies for the treatment of mental diseases until now (Bower, McCullough & Timmons, 2003).

In short, a retrospective exploration of what psychiatric work (in particular PR use) has involved throughout history, has made historians suggest that psychiatric treatments may constitute a form of coercion (Belkin, 2002).

Geographic Location.

The use of PRs is not only a highly prevalent practice, but it is also an intervention extended throughout the world. People with mental disabilities undergo seclusion, isolation and PR use as a mean of treatment worldwide (Drew et al., 2011). These restrictive measures are often implemented with punishment or coercive purposes, instead of promoting safer conditions
and protecting the patient (De Benedictus et al., 2011), promoting violence and abuse (Stefanakis, 2008). In fact, the increase of violence in the health care settings (Strout, 2010) has a parallel counterpart in the increase of the use of PR use (Bower, McCullough & Timmons, 2003), which illustrates this current tendency worldwide.

The situation in regard to the use of coercive measures in psychiatric setting of low-income and middle-income countries is very serious, but also in developed countries restrictive and harmful practices are used under the name of “mental health treatments” (Drew et al., 2011, p.1668). Hence, abuses and violations of patient’s rights are occurring worldwide. As such, the use of PR towards people with mental disabilities is not an exception, being a current practice happening all over the world that has been under-studied (Drew et al., 2011; Bower, McCullough & Timmons, 2003). Thus, despite variations among countries and institutions, the use of PRs is a concern that all countries have in common given the legal and ethical concerns that these practices generate, and the lack of an effective alternative (Matson, 1994).

Terms and definitions.

The use of PRs towards youth in IPPU is a phenomenon whose definition and attributes have not been clarified yet in the literature. This construct has received a wide variety of terms, definitions, conceptualizations and measuring methods, acquiring different meanings depending on authors or organizations.

The term “physical restraint” is used interchangeably with others such as restraint, mechanical and manual restraints, physical interventions, physical measures and therapeutic holding among others (Day, 2002; Steinert & Lepping, 2008; Bowers et al. 2004; Goren, Nirbhay, Singh & Best, 1993; Fryer, Beech, Byrne, 2004; Bush, Shore, 2000). Likewise, the umbrella terms that categorizes these practices as coercive measures (Janssen et al., 2011) or...
aversive measures (Hibbard, Larry and Desch, 2007) making it difficult to differentiate PRs from other practices such as seclusion or chemical restraints. Significantly, most of the studies reviewed use the words “restraints and seclusion” together as if it was a single unit of analysis. Nevertheless, both words are considered to be independent entities despite the commonalities and differences between both have not been described. In addition to this, the literature shows that use is not the only verb when referring to PR. Noteworthy are the cases of misuse of PRs and abuse of PRs (Singh, Singh, Davis, Latham and Ayers, 1999).

Regarding definitions that refer to PRs in youth, a differential definition of PR use for youth in relation to adults has not been found. Noteworthy are the terms “time-out” and “therapeutic holding”, which are present only in research about pediatric population (Sourander, Ellilä, Välimaki & Piha, 2002). However, the reason for the different use of terms or techniques in adults and youth is unexplored in the literature. Given the absence of studies on this topic in the Community of Madrid (CM), in order to clarify how PR is defined in the IPPU in the CM it can be useful to look at the definitions included in the PR protocols of these units: the PR protocol of the Pediatric University Hospital does not include any PR definition, stating only the PR objective “to achieve the limitation of movement of part or the whole body, with the purpose of controlling his/her physical activity or protecting him/her from harm that may cause to him/herself or others” (p.1). The PR protocol of the General University Hospital (Contención mecánica para pacientes ingresados en las unidades de hospitalización breve de psiquiatría, 2010) is the same for the inpatient psychiatric units for adults and adolescents and includes the following definition: “method of physical immobilization through the use of authorized equipment, with regard to the behavioral control of the psychiatric patient, carried through health care professionals trained in PR use, aimed to safely limit the movements of part or the whole
body of a patient to prevent him/her from harming him/herself or others and/or jeopardizing the therapeutic milieu”. On this regard, a very important document has been recently released from the Regional Office of Mental Health (Madrilenian Health Care System, 2013). This document is “Recommendations for actualization of Therapeutic Immobilization protocols” (Madrilenian Health Care System, 2013) and it recommends to “exclusively use the term Therapeutic Immobilization, more appropriate, as it is a measure included in the therapeutic plan of a patient, in a professionalized and humanized health care context” (p. 5). The Therapeutic Immobilization is defined as: “exceptional measure applied after all other measures have failed; during its application the dignity of the patient must be scrupulously safeguarded rejecting his/her stigmatization with the purpose of minimizing the emotional impact that this measure may have on the patient or relatives or close relations. Therefore, terms such as ‘mechanical restraints’, ‘mechanical fastening’, ‘physical restraint’ or ‘movement restraint’ or any similar term will be avoided as these terms only refer to its coercive aspect”. (p. 5).

To summarize, despite the mentioned lack of clarity, it can be inferred that the definitional elements of PR are: time (momentum and duration of the event), use of force or physical contact, and limitation of movement or freedom. These elements have served to establish the tentative definition of PR use towards youth in IPPU for this research proposal.

Importantly, an essential element that is absent in all reviewed definitions is the legal component of this practice; such definitions only refer to the procedure involved in restraining a patient. The relevance of a legal definition stems from the fact that depending on how PR is legally conceptualized different laws may regulate this practice. In particular, to distinguish whether PR falls into the involuntary placement or involuntary treatment category (FRA, 2012) is very relevant for the case of the CM in Spain given that the Spanish legal framework
distinguishes between involuntary placement and involuntary treatment and regulates them separately. On the one hand, Article 763 of the Civil Procedure Act regulates involuntary placement and, on the other hand, Article 9 of the Act on the Autonomy of the Patient regulates involuntary treatment. Hence, without a PR legal definition it is not clear which of these laws, or if both laws, regulates PR use in the CM. In fact, the reviewed PR protocols in the CM reflect this confusion: the PR protocol of the Pediatric Universitary Hospital (Contención mecánica, unknown) does not specify which laws regulate this practice, the PR protocol of the General University Hospital only makes reference of Article 763 of the Civil Procedure Act and, the “Recommendations for actualization of Therapeutic Immobilization protocols” (Servicio Madrileño de Salud [SMS], 2013) refers both to Article 763 of the Civil Procedure Act and to Article 9 of the Act on the Autonomy of the Patient; Article 763 of the Civil Procedure Act serves to state that PR (named as “therapeutic inmovilization”) use will be notified to the court when the therapeutic immobilization entail the involuntary placement of the patient and Article 9 of the Act on the Autonomy of the Patient serves to state that informed consent of the PR (Therapeutic Immobilization) is not necessary if the situation is “truly urgent” (p. 5).

**Measurement approaches to the use of PR.**

The review of the literature shows that the data on the use of PR can be reported on different units of analysis such as patients, number of admissions, duration of PR, or other measures depending on the research question and purpose of the study. The calculations may vary from absolute numbers, number of PR hours per 1000 inpatient hours, number of PR per 1000 admissions, number of PR per 100,000 inhabitants, number of PR days per 1000 occupied bed, PR hours per 1000 inpatient hours (Janssen et al., 2011), number of seclusion per 100 admissions or per 100 occupied beds (Bowers, 2000).
Significantly, no specific units of analysis for youth have been found in the literature and none of them provide complete and accurate information regarding the actual rates of PR. For example, the number of patients that undergo PR within a period of time will be always smaller than the number of admissions due to readmissions, therefore, the percentage of admission exposed to PR will be different from the percentage of patients exposed to PR with the disadvantage that the length of stay of each patient does not impact the results. If the use of PR is measured in terms of its duration, it is generally calculated at the level of the PR intervention, independent of the number of patients involved, which hides the situation of single patients with longer or more frequent PR (Steinert et al., 2010).

In an attempt to unify the variety of unit of analysis, a rating scale was developed to register the use of restrictive measures, the Argus-scale (Janssen et al., 2011). However, the Argus-scale does not have as a construct “physical restraint”. The Argus-scale covers the domains: seclusion, mechanical and manual restraints and enforced medication. Interestingly, in Argus the time frame of a coercive measure is described as an episode (period from the beginning to the moment of discontinuation) or as an incident or event (sequence of episodes without a discontinuation of more than 24 hours).

In the nursing field, two measures of PR have been found in the review of the literature, although none of them are referred to youth population. One of the measures was developed by Gerolamo (2008) who used the construct Physical Restraints Episodes operationalizing it as “nurses’ report of each such occurrence in the unit during a given shift” (p.97) using for the data collection an episode report form. The other measure is the Moylan Assessment of Progressive Aggression Tool (MAPAT) (Moylan, 2009) that attempts to evaluate nurses’ decision making in relation to the use of PR in acute care psychiatry.
These reviewed PR measures and units of analysis cannot be used for this research proposal as they refer to adult population. Nevertheless, they have been taken as a reference to build the guide to observe PR interventions for this study.

**Cultural aspects.**

Culture refers to all the non-biologically inherit aspects of human beings, which therefore are socially constructed and learned. Culture embraces all social structures, artistic and intellectual manifestations that depict a society (Hufford, 1995). Particularly, in the case of PR use in IPPU, beliefs and values about PR use have been present throughout history (Fariña-López & Estévez-Guerra, 2011) and have shaped the current state of PR practice. In fact, the lack of scientific evidence surrounding this topic has lead to assumptions and opinions (Mohr & Anderson, 2001), which may suggest that PR use is “profoundly influenced by culture” (O’Connor, 1998, p. 263). Examples of cultural influence on PR use include the stigma associated to mental health patients as “aggressive” (Stuart, 2003), the specific role assigned to each HP in psychiatric settings (Baker, 2000), the notion of professional authority (Ramon, 2000), the staff’s expected neutrality in response to a patient’s agitated behavior (Delaney, 2001), the rooted inequality in clinical practice in mental health settings (Wolfensberger, 2007; Szasz, 1997), the custodial and protective way of treating mental patients (Bower, McCullough & Timmons, 2003), the emphasis on social control and rules within psychiatric institutions (Goren, Singh and Best, 1993) and the legal provisions that regulate this practice (AACAP, 2002), among others. In addition, the previously mentioned differences in PR rates and techniques between countries reveals the influence of culture and context on this practice.

Another indication that PR use is a culturally bound topic is that the values underlying PR use have changed over time; however, it is important to acknowledge that some assumptions
have been more widespread than others. Despite PRs being traditionally considered either punishment or a treatment these notions still prevail, during the last decade there has been a shift in the conceptualization and justification of PR use. This conceptualization has been developed in accordance with the new perspective in healthcare introduced in the document “To err is human” (IOM, 1999). This document constituted a turning point in the perspective of health care treatment as it raised awareness of the number of deaths as a consequence of treatment errors. In this regard, PR use has recently received the status of an “error, not a treatment” (California Senate Office of Research, 2002) and, in particular, the emotional and physical harm due to “excessive” use of PR is currently considered an error. In relation to this, and in light of the damage associated with PR use and the arbitrariness of the implementation of this practice, the American Psychiatry Association has considered the use of PRs a priority in relation to patient’s safety (Herzog et al., 2003). In particular, the emotional and physical harm due to “excessive” use of PR is considered an error for commission. In this case the conditions that determine when the use of PR is “excessive” are again not defined, however, this statement implicitly assumes that any PR use is “excessive”, and therefore erroneous, when it is not used according to the protocol that indicates (although not specifically) when PR are used appropriately. In this regard it is also important to clarify that an error that has not caused harm is called a “missing error”, while an error that has caused harm is called “preventable adverse event” (MedScape, 2007, p. 2). Despite the potential benefit of these two differential concepts, establishing this distinction is not possible for this study as it has not defined what “harm caused by PR” or “patient at risk to harm her/himself or others” means. As a result of this, and given the evidence that shows the negative consequences of PR use, this study assumes that PR errors (excessive use) are
“preventable adverse events”, considering that HPs face the challenge of ensuring that the incidence of excessive PR use is low (Maloney, Ellis, Garland, Palyo, & Greene, 2012).

This new approach has in turn led to an increase in concern for the high prevalence of harm as a consequence of errors in mental health practices. Also, to emphasize that health care systems are behind in implementing safety culture as has happened previously in other industries. Besides the late introduction of safety culture in health care, two other issues are making it difficult to implement an adequate safety culture in health care systems: the so-called “fragmented safety culture” (Goodman, 2003) and the “perfectibility model” (Hellings, Schrooten, Klazinga & Vleugels, 2007). The “fragmented safety culture” (Goodman, 2003) refers to safeguards that have been directed at the organization’s end product (patient’s health outcomes), though it should also include employee safety (Evans, 2013). This means that there is a compartmentalization of safety problems into patient and non-patient categories (Goodman, 2003). In regards to the “perfectibility model” (Hellings, Schrooten, Klazinga & Vleugels, 2007), physicians and nurses are trained and work in a model that assumes perfection. This model makes staff worry that mistakes they make will be kept in their personal file. As a result, errors are underreported due to fear of litigation or of being severely reprimanded. Thus, as a result of this brief review of the cultural values surrounding PR use, it can be inferred that while PR use in the past mainly represented the fear of mentally ill people, nowadays PR use is not only related to fear of the mentally ill but is also due to the counter-fear of using PRs as it may constitute a medical error.

**Contextual and environmental aspects.**

The notion of the environmental structure as a therapeutic element of treatment has been present in literature since the middle of the 20th Century (Jones, 1953). Years later, Gunderson
(1978) established the five processes needed for a milieu to be therapeutic: containment, support, structure, involvement and validation. Using this framework, Lawson (1998) found that patients rely on the safety offered by containment function to internalize a sense of personal security, and that the milieu therapy depends on well-trained, emotionally prepared, cohesive staff and that the structure (processes of organizing time and activity) provided a sense of predictability.

Nevertheless, in recent years the notion of a therapeutic milieu has been questioned. The shortened lengths of inpatient stay, the influence of managed care, the dominance of and reliance on psychopharmacology, the focus on symptom management, fragmented services, and the critical shortage of qualified psychiatric nurses (Maloney, Palyo, Napier & Giordano, 2009) have challenged the notion of milieu as therapeutic. Hence, the milieu is losing its social function, generating a shift in focus from the interpersonal domain of care towards inpatient settings based primarily on structure, limit setting, and safety, which are taking over in psychiatric settings. Therefore, if the therapeutic milieu is not considered important to inpatient care, there is a risk that the care environment becomes focused strictly on safety, symptom reduction and cost containment. In fact, various studies provide indicators that may suggest that there is a Fragmented Safety Culture in nursing care: Forchuk and Reynolds (2001) found that there are elements of separation between nurses and patients; Dickens, Sugarman and Rogers (2005) stated that nurses’ autonomy is not respected and rules and procedures are overemphasized; Shattell, Andes and Thomas (2007) revealed that both nurses and patients defined the environment as a prison-like world, that patients felt intimidated by nurses and that nurses felt intimidated by the administration. In relation to this proposal’s topic of interest and given that PR use is nowadays justified for safety reasons, it seems plausible to suggest that the change from a therapeutic milieu to a care environment focused on safety will influence HPs’ PR decisions.
Alternatives and PR reduction interventions programs.

The review of the literature shows an increase in the last fifteen years of PR regulation and reduction programs. Particularly, the attempts to reduce PR in youth are numerous and diverse, however, the level of evidence about their effectiveness varies. The proposed alternatives to PR range from a new model of care (LeBel et al., 2004), the introduction of a padded room (Larson, Sheitman, Kraus, Mayo & Leidy, 2008), comfort rooms (McDaniel, 2009), a behavioral therapy oriented management program (Dean et al., 2007), a collaborative problem solving approach for aggression (Martin, Krieg, Esposito, Stubbe & Cardona, 2008), Six Core Strategies Based on Trauma Informed Care (Azeem et al., 2011; Huckshorn, 2005; LeBel, Duxbury, Putkonen, Sprague, Rae & Sharpe, 2014), educational programs to help staff handle violent or confused patients (Bower, McCullough & Timmons, 2003) and, practice parameters such as those provided by the American Academy of Child and Adolescent Psychiatry (Masters et al., 2002). As other alternatives, the technique of time-out has been explored as a behavioral modification method as well as the therapeutic holding or removal from stimuli. Despite not tested in youth population, noteworthy are the ten interventions to reduce conflict and containment incidents based on the Safewards model (Bowers, James, Quirk, Simpson, Stewart & Hodsoll, 2015). This study is the first randomized controlled trial that aims to evaluate a reduction program in adult psychiatric units, and the interventions based on the Safewards model has shown to reduce the rate of conflict events and the containment events by 15% and 26.4% respectively compared to the control intervention.

Ethical considerations.
PR use with youth has been considered “an uneasy fit” (Mohr, 2010) in clinical practice due to the legal and ethical dilemmas that using PR generates and the potential infringement of the youth’s basic rights that it may entail (Menon, Raghavendra & Bernard, 2012). Currently, the ethical debate focuses on the conflict between patient’s right of freedom of choice and the involuntary restriction of movement imposed by PR.

In this regard, PR may be at odds with ethical principles as the use of restraint breaches a person’s autonomy - the right to make one’s own decisions- and, despite this, this principle is predicated upon an individual having insight into the consequences of her/his actions (i.e. a mental health patient that acts aggressively regardless harming her/himself or others). The violation of autonomy is also justified with the principles of beneficence - PR is used in the service user’s best interest- and non- maleficence - PR is carried out in order to prevent the individual from coming to harm- (Horsburg, 2003). Likewise, the health professional’s code of ethics is derived from these ethical principles, which are meant to be applied in the individual exercise of professional judgment (Mohr, 2010). In fact, Goethals et al. (2011) found that nurses weigh values like beneficence, dignity, freedom and respect for autonomy when deciding to use PRs. Nevertheless, the potential misuse of PRs, and the reported overuse or systematic use of PRs to control difficult behavior (De Hert et al., 2011) constitutes a major ethical dilemma.

Noteworthy, the ethical implications of the recent notion of PR as “an error, not a treatment” (IOM, 2003) have not yet been included in the aforementioned debate. It means that this new conceptualization of PR begs the question of whether it is ethically justifiable that the principle of an individual’s autonomy is a given if the action (PR) that limits the patient’s freedom is considered an error.

**Legal considerations.**
Given that PRs occur within psychiatric institutions, HPs’ decisions on PRs will be regulated under certain contractual and legal obligations. One of the legitimate reasons to use PRs is for behavioral needs (Clark, 2005). In this respect, one of the HPs’ responsibilities is to ensure a safe environment by controlling a patient’s behavior; if the safety of a patient or others is at risk, PR use may be necessary (Goethals et al., 2011). PR is regulated by clinical guidelines and laws that aim to clarify “how, and when” (Horsburgh, 2004) PR is appropriate and therefore legitimate. Nevertheless, a review of PR standards and regulations (Steel, 2010) indicates that the only agreement is that PR should never be used inappropriately. However, what “inappropriately” means is not clear and, in general, guidelines indicate that PRs should be used as a last resort and in emergency situations when risk of inaction outweighs the risk of using PR.

To be appropriate, PRs should be the least restrictive alternative when other strategies have failed to protect the patient or others from imminent harm (Horsburgh, 2004). In light of this, it is obvious that despite these attempts to provide clear indications to use PR appropriately, it is up to the HP to determine what “last resort”, “least restrictive”, “no harm” and “inappropriate” means in each situation. Hence, the legal framework that regulates PR in IPPU is still very vague and it is not clear in which cases PR constitutes an appropriate action or malpractice.

**Human rights standards.**

The Convention on the Rights of Persons with Disabilities (United Nations [UN], 2006) by the United Nations General Assembly on December 13, 2006, currently the universal standard for the human rights of persons with disabilities taking precedence over previous instruments (International Disability Alliance [IDA], 2008). It has set a new international approach towards disability, moving from a medical model to a social model while recognizing that disability is not a problem based on the person, but rather a problem generated by barriers in society. Having a
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focus on non-discrimination, autonomy, equal treatment and inclusion, these principles should be embedded within the State Members legislation regarding people with disabilities, challenging the current legal frameworks that regulate involuntary treatment and involuntary placement, and therefore PR use.

Spain ratified the CRPD and the Optional Protocol on April 21st, 2008 and it entered into force on May 3rd, 2008. From that moment, in accordance to article 96 of the Spanish Constitution of 1978, the CRPD became part of the internal legislation, which made necessary the adaptation and modification of laws and regulation to make the rights included in the CRPD effective. Therefore CRPD is the referential international standard for both Spanish and the Community of Madrid’s (CM) legislation in relation to the regulation of PR use. In this regard, a review of Spanish and CM legislation of PR use in IPPU in light of the CRPD revealed a lack of specific regulations to ensure that PR is used in IPPU with a respect of principles of human rights. These deficiencies mainly refer either to legal vacuums or to laws that are at odds with CRPD principles.

Among the legal vacuums there are a lack of definitions and lack of regulations. In terms of definitions, a legal term and definition for PR does not exist, nor is there a definition of a “minor” that specifies the age and psychosocial conditions for maturity. In regards to the lack of regulations, there is not a specific law to protect the rights of youth with disabilities nor there are specific laws that regulate PR use in mental health facilities for minors. Likewise, there is no provision that states whether in any circumstances and conditions PR can be used appropriately and for the youth’s best interest and who is accountable and authorized to decide on PR use with youth. Lastly, there are no regulations that specify how PR data should be collected, disseminated and utilized.
Among the laws that are at odds with CRPD principles, are laws that are permissive of restrictive practices on the basis of a psychosocial disability as well as laws that do not consider youth with disabilities’ opinions in regard to health practices such as PR use on equal basis as other youth. Regarding the former, Article 763 (1) of the Spanish Civil Procedure Act and article 211 of the organic law 1/1996 of Judicial Protection of the Minor, authorizes the institutionalization of minors on the grounds of disability. Regarding the latter, article 10 of General Act on Health and Article 9.3c of the Act No. 41/2002 of 14 November, allows PR to be used without the patient’s free and informed consent when s/he is not intellectually, emotionally or mentally capable of taking such decisions. In short, there is a lack of specific regulation on this topic, and the scant existing legislation does not meet CRPD standards. This may show that despite the legal and ethical implications of PR use, its regulation has been neglected.

Persons involved in physical restraints

Youth who undergo physical restraints.

Youth with mental disabilities. ICD-10 (International Statistical Classification of Diseases and Related Health Problems 10th Revision) defines disability as any restriction or lack of capacity (consequence of a deficiency) to carry out activity on a level considered normal for an individual in a particular socio cultural situation (WHO, 2008). This definition states that disability is not a global disorder of the individual person, but it refers instead to functional disorders, being the result of the interaction between the person and the barriers in society that may hinder her/his participation in such a society on an equal basis with others (European Union Agency for Fundamental Rights [FRA], 2012). Another important defining aspect is that a disability is part of a human’s condition; almost everyone will suffer some kind of disability, either permanent or transitory, during his or her life span. Throughout the world, over one billion
people, 15% of the world’s population lives with some kind of disability, a number that is increasing due to chronic conditions such as diabetes, cardiovascular diseases and mental disorders (Ministerio de Sanidad, Política Social e Igualdad [MSPSI], 2012).

Focusing on this topic of research, disabilities related to mental disorders are increasingly relevant and are particularly serious in the case of youth; WHO estimates that by the year 2020 the percentage of youth with neuropsychiatric disorders will rise over 50% worldwide. This implies that mental disorders will become one of the top five causes of mortality, morbidity and disability in youth in the near future (Hoagwood & Olin, 2002). In Spain, the “Encuesta de Discapacidades, Deficiencias y Estado de Salud” (Jiménez Lara & Huete García, 2000) reports that 9% of its population has some type of disability. Furthermore, even though the risk of having a disability increases with age, there are already approximately 118,000 children under 15 years old in Spain with disabilities. However, epidemiological data about mental health disorders are incomplete and there are no definitive studies about mental health disorders in childhood and adolescence, therefore the relative percent of disability caused by mental health problems is unknown. Only studies from Valencia and Navarra provide data on this topic and importantly, these studies indicate that behavioral disorders are not only the most prevalent mental health problems, but they are also the disorders that entail the most problems in the short and long terms (Ministerio de Sanidad y Consumo, 2007). This is relevant as behavioral disorders are the health problems most related to PR use, as will be explained in further sections.

In this regard, the absence of data makes this issue even more serious and urgent since the emotional, behavioral, and developmental needs of these youth have been neglected (Friedman, 2005; Comité Español de Personas con Discapacidad [CERMI], 2008). In addition, youth with mental disabilities are at a higher risk of suffering maltreatment and abuse. The
incidence of maltreatment in youth with multiple disabilities admitted to a psychiatric hospital is 39%. It is noteworthy that these conditions are underrated and underreported which makes it difficult to determine whether disabilities were present before or if they were the result of mistreatment (Hibbard & Desch, 2007). What seems most evident is that when psychological trauma disrupts a youth’s development, victims are at risk of suffering persistent behavioral and emotional disorders (Ford et al., 2005).

**Characteristics of youth who undergo PR.** In general terms, there are four main characteristics of youth who are most likely to suffer PR. First, behavioral disorders have been documented as the factor most frequently associated to the use of PR among youth (Azeem et al., 2011; Crocker et al., 2010; Delaney et al. 2005; Fryer et al., 2003; Gullick, 2005; Tompsett, Domoff & Boxer, 2011; Sourander et al., 2002; Sukhodolski et al., 2005). In relation to the type of disorder, a Canadian study (Steward, Baiden & Theall-Honey, 2013) found that the type of coercive measure differed for children with developmental disabilities compared to those with mental disorders; while children with developmental disabilities were more likely to undergo chemical restraints and secure isolations, children with mental health problems were more likely to suffer PR. The second aspect most frequently associated with PR is age, the younger the person is, the higher the associated PR rates (Persi, 1999; Fryer et al., 2003; Gullick, 2005; Sourander, 2002). Third, gender has been reported as a significant factor; there are higher PR rates among males than females (Delaney, 2005; Fryer et al., 2003; Martin et al., 2008; Persi, 1999). Fourth, race or ethnicity is a factor that is evaluated only in US studies; it has shown to be consistently significant in such studies (Martin et al., 2008; Sukhodolski et al., 2005; Donovan et al., 2003). Likewise, an initial study focused on exploring the impact of race on PR use suggests that racial bias affects the use of PR with youth (Toriello, Leierer & Keferl, 2003).
In addition to these four aspects, other reported characteristics of youth that account for higher PR rates are: longer length of stay (Donovan, Plant, Peller, Siegel & Martin, 2003; Martin, Krieg, Esposito, Stubbe & Cardona, 2008), exposure to domestic violence and victimization by peers (Tompsett, Domoff & Boxer, 2011), the presence of mental retardation or schizophrenia (Bush, Miles & Shore, 2000; Bower, McCullough & Timmons, 2003), suicidal behavior, severe psychopathology (Dean et al., 2007; Gullick, McDermott, Stone, & Gibbon, 2005; Martin, Krieg, Esposito, Stubbe & Cardona, 2008; Sourander, Ellilä, Välimaki & Piha, 2002), a custodial living situation or foster care, psychotic disorders, multiple admissions and previous psychiatric hospitalizations (Delaney & Fogg, 2005), a history of abuse or neglect, co-morbid learning disorders or enrollment in special education and involuntary admission (Fryer, Beech & Byrne, 2004), and poor family functioning (Gullick, McDermott, Stone, & Gibbon, 2005). It is noteworthy, given that USA studies include race, ethnicity or SES as variables to explore, these studies explain the higher rates of PR among youth from racial or ethnic minority groups as these youth have less access to outpatient health care (Delaney & Fogg, 2005). In this regard, studies from Australia explain the differences in PR rates according to the cumulative effect of having multiple risk factors as a significant predictor of PR among youth (Tompsett, Domoff & Boxer, 2011). European studies share this explanation, stressing the importance of considering the environment of the child when assessing PR or involuntary admissions in youth (Haltiala-Heino & Fröjd, 2005).
Health professionals who decide about physical restraints.

Professional category. The reviewed articles have shown that a variety of HPs are involved in the use of PRs. Nevertheless, the specific role of each HPs is not clearly described in the documents, making it impossible to determine who decides or exacts the PR intervention. In this regard, it is important to note that despite regulations that do not authorize nurses to sign a PR order, as PR use should be used only after a physicians’ clinical assessment and decision, in reality the nurses are “not only the key informants describing these patients’ clinical conditions and the events preceding seclusion or restraints, they were also often the key decision makers” (Kontion et al, 2010, p. 72). Thus, who, how and, to what extent each HP category is involved in PR decisions is yet to be determined.

This shows that there is very little information in the literature about aspects related to all HPs involved in PR use and significantly, articles and documents mainly refer to nurses. Hence, the following aspects related to HPs will mainly refer to nurses.

Ideology and ethical stance. The ideology of nursing can be defined as “a system of beliefs and goals that influence the body of knowledge used by the nursing profession” (Ellilä, Välimäki, Warne, and Sourander, 2007, p. 584). In this regard, two main characteristics may describe the ideological foundations of mental health nurses’ work in IPPU. The first aspect is related to the recent change in the therapeutic milieu: conceptualization of an environment focused on safety. Due to this, nurses are currently focusing their work on safety and technology without ideology (Delaney, 1997), with their main role being to observe symptoms and control patients’ behavior (Hummelvoll & Severinsson, 2001). The second aspect refers to the great difficulty in articulating the ideological background of nurses’ work and the lack of familiarity of nurses with ethical principles. Nurses find these principles impractical and too theoretical (Ellilä,
Välimäki, Warne, and Sourander, 2007). In this regard, an exploration of nurses’ attitudes towards ethical issues in psychiatric settings (Eren, 2013) showed that majority of nurses showed low recognition of ethical problems and some nurses did not considered PR as an unethical behavior as it is executed upon psychiatrist’s request considering it to be part of the patient’s treatment.

In short, the review of the literature indicates that it is very difficult to identify a common ideological and philosophical background that guide mental health nurses’ work, but safety seems to be prioritized over ethical principles.

**Experiences.** Studies exploring HPs’ experiences in relation to PRs have only focused on nurses. Only two studies have been found in this regard; one refers to an adult acute psychiatric unit in New Zealand and the other is based on an IPPU in Bilbao (Spain). Results from both studies present commonalities and differences. Among the commonalities, nurses in both units found that PR is a very uncomfortable (Bidwood & Crowe, 2008) and “bitter” (Marqués-Andrés, 2007, p.2) practice for nurses; nurses feel conflict, fear, uncertainty, and even guilt. The main difference between both studies is that while the conflict for nurses in New Zealand is related to the balance between their responsibility to maintain control and their values about the nurse-patient relationship, the conflict for Spanish nurses was related to the violation of the youth’s rights, the potential of harm when using PR and the sense of professional failure.

**Education and training.** Education in psychiatric care has been considered a major issue in Europe, particularly in relation to PR use (WHO, 2005, 2006; Council of Europe, 2000). Despite this, PRs educational programs have not been standardized and the quality of such programs is unequal between different regions and institutions. In addition, literature exploring
PRs educational and training programs is insufficient, therefore the effectiveness of existing programs is unknown. It is noteworthy that although PR training is a recommendation that most authors suggest in order to help reduce PR rates (Delaney & Fogg, 2005; Donovan, Plant, Peller, Siegel & Martin, 2003), such a recommendation is not based on studies that have shown a correlation between PR training and the use of PR.

Nevertheless, education about PR is a perceived need that both nurses and physicians share (Kontio et al., 2009). Kontio’s et al. (2009) study shows that HPs emphasized the need of written guidelines on how to proceed considering legislation, rules and evidence-based practice criteria about seclusion and restraints. In contrast, some nurses highlighted the uniqueness of each PR episode stating that the PR procedure cannot be standardized. Likewise, HPs demanded practical and continuing education on ethical, legal, and clinical issues.

In Spain in particular, no studies about PR education or standardized PR education programs have been found. In general terms, the educational system for HPs in Spain has been in transition during the last decade due to the equivalence of educational programs in Europe. At the moment, nursing education in Spain consists of a four-year degree at the undergraduate level in order to obtain a Bachelor Degree, and to become a Nurse Specialist in Mental Health the program consists of two years of clinical and theoretical training. It is worth noting that specialization in Mental Health Nursing is not a requirement in order to work in an IPPU in CM. In regard to physicians, Medical education requires six years at the undergraduate level and four years of clinical and theoretical training to become a psychiatrist; the sub-specialty of child psychiatry is not officially recognized in Spain.
Decision-making

**Decision-making theories.** Decision-making consists of a process of looking for, assessing, finding and choosing between alternatives (Loke, 1996). Dowie (1993) argues that decisions also require predicting the future as they are based on the likely consequences of said decision. Moreover, individuals need to draw on different sources of information when making choices, for example: previous experiences, other’s expertise, external information and research evidence (Sadler, 1986). Importantly, in addition to considering alternatives, sources of information and future prediction, decisions are also shaped by elements of subjectivity and a level of uncertainty. These elements suggest that decisions are not objective and unbiased, but on the contrary, decisions may be flawed and fallible (Hammond, 1996). Nevertheless, far from there being a single and unified definition of decision-making, what decisions are and how people make decisions is still up for discussion. In fact, there are different positions and philosophies that currently hold a perspective on decision-making. Three have been three main paradigms that have guided decision-making research: the “Classical decision-making” paradigm (CDM), the “Naturalistic decision-making” paradigm (NDM) and the “Prescriptive decision-making paradigm” (PDM).

CDM is one of the original decision-making paradigms; it started when Edwards (1954) and Hammond (1995) established decision-making as a scientific inquiry in the 1950s. This paradigm viewed the decision maker as deciding in an ideal world of certainty, where the problem was clearly defined and all the possible alternatives and consequences were known. Under these conditions, the rational decision maker would be the person who chose the optimal alternative and therefore make the correct decision (Shaban, 2005). Coming from the assumption that it is possible to determine criteria to evaluate decision-making, “classical” decision theories
seek to define optimality and decision-making rules in order to prescribe the optimal choice or the correct way to make a rational decision in an ideal world. Such theories are the so-called normative theories, which are based on statistical and mathematical formalisms which constitute the gold standard for optimal decision-making. There are two main normative approaches of choice: Expected Utility Theory and Subjective Expected Utility Theory. Both perspectives hold the common idea that a person should maximize one’s gain when making decisions, basing the judgment on the ratio of the probability of each possible alternative by the amount of payoff of each alternative. The main difference between both approaches is that while the former was originally formulated based on objective probabilities of the occurrence of an event, the latter includes the notion of subjective probabilities or the degree of belief that the person holds on the chance of occurrence of a certain event (Raiffa, 1997).

Coming from the assumption that a person should make good decisions in a rational world (Beach & Lipshitz, 1993), CDM research has focused on individual decisions and has been predominantly developed in laboratory settings. Hence, in studies based on CDM, subjects are presented a number of vignettes or scenarios and they need to select a particular course of action from a set of fixed options. This way, it is possible to contrast the selected alternative or the observed decision with a normative standard and therefore identify deviations, which are seen as decision biases. It was not until the late 1960s that psychology provided an explanation for such decision biases. Kahneman and Tversky’s research on judgment under uncertainty and heuristics claimed that “people rely on a limited number of heuristic principles, which reduce the complex tasks of assessing probabilities and predicting values to simpler judgmental operations. In general, these heuristics are quite useful, but sometimes they lead to severe and systematic errors” (Kahneman, Slovic & Tversky, 1982). This seminal work on heuristics and biases
revolutionized decision-making research, as Kahneman and Tversky seemed to have found why people did not decide rationally. However, this important field of study has been subject to considerable criticism from the mid-1980s, both in its forms of conceptualization and its methods. The main sources of scrutiny for CDM are whether normative theories constitute adequate gold standards to evaluate rational decision-making and whether these studies have ecological validity, given that they are developed in laboratories, based on an ideal rational world and focused on individual performance. Such criticism led to a reframing of decision-making giving place to a new philosophical paradigm referred to as naturalistic decision-making (NDM).

Unlike the ideal rational world of CDM, NDM views the decision maker situated in a dynamic real world environment, where problems are ill-structured and goals competing and ill-defined. This paradigm aims to provide a framework to develop a comprehensive account of the decision-making process, recognizing that decision makers are not solitary individuals, but they live in a social and changing world. In these environments, factors such as time constraint and organisational norms are balanced and may even be in conflict with the decision-maker’s personal choice (Flin, Salas, Strub & Martin, 1997). This perspective places no importance on whether a person decides rationally or irrationally, but it seeks to understand how people make decisions in the real world, assuming that the decision maker decides based on what s/he perceives in a given situation, relying primarily on her/his experience in making previous decisions. This approach has led to the development of descriptive theories (as opposed to normative theories), whose core are the notions of context, interactions and ecology are core. The most influential descriptive theory in health care is that of “Information-processing theory”, also referred to as “Hypothetico-deductive theory”, which considers that decision-making consists of a reasoning process involving a number of stages. As in any other descriptive theory, it does
not aim to find ways to evaluate the quality of the decision, but it is concerned with discovering how people make a certain judgment or decision, regardless of whether it is good or bad.

Coming from these premises, studies based on NDM are not developed in laboratories and do not evaluate individual decisions; on the contrary, these studies aim to understand decision-making in field settings in interaction with other processes and factors. Hence, studies based on NDM employ a greater range of methodologies, being particularly committed to in-depth qualitative methods. Nevertheless, although this perspective has provided a new understanding and methodology to study decision-making in a real-world environment, NDM has been critiqued in different aspects. First, given that this approach is merely descriptive it does not allow for the evaluation of the quality of decisions. Second, given that it is conducted in particular settings it is difficult to generalize findings to different contexts. Third, like CDM research, NDM have not been able to develop effective models for guiding, training and facilitating decision-making processes. Thus, in order to overcome these limitations a new paradigm has emerged aiming to improve the quality of decision-making in actual practice: the prescriptive decision-making paradigm (PDM) (Bell DE, Raiffa H & Tversky, 1988).

The existing dichotomy in the understanding of decision-making from normative and descriptive decision-making theories was unable to find ways to improve decision-making in real settings. In order to fill this gap, PDM aimed to examine decision-making in order to help people make better judgments and decisions. This perspective has mainly been used in management sciences in order to help and train professionals to improve their decision-making capabilities. Particularly in health sciences, decision analysis and decision trees have been commonly used to develop prescriptive models. In recent times, the use of guidelines, a newly introduced prescriptive tool in decision-making, also referred to as protocols, has been used (Thompson &
Dowding, 2002). Such guidelines include information and procedures aiming to improve the quality of decisions or to standardize practices in order to reduce variations and diminish practices not based on research evidence. In addition to decision-trees and guidelines, computer-assisted decision-making has also been applied to assist professionals’ decision-making. Technology has been considered to have a mediating role in decision-making as it transforms individuals’ performance while using it (Patel, Kaufman & Arocha, 2002). Nevertheless, the implementations of guidelines and technology in decision-making have been also critiqued for having variable effects and because they may not be a sufficient solution for complex problems (Mohan et al., 2012).

Clinical Decision Making. After providing a general overview of decision-making theories and perspectives, the next step would be to narrow the scope, focusing on decision-making in clinical settings, the so-called “clinical reasoning”, “practice decision making” (Higgs et al., 2008), “medical decision making” (Patel, Kaufman & Arocha, 2002) or “clinical decision making” (Banning, 2006; Higgs et al., 2008). Research in this field has gained importance in the last decades in light of the increasing awareness of errors in health care which may lead to negative outcome for patients (Patel, Kaufman & Arocha, 2002). Likewise, the particular case of clinical decision-making requires its own field of study and methods as it demands from HPs to perform a more complex process, given that such decisions are taken in a dynamic context, using evidence-based knowledge, with multiple variables to consider, various persons involved and uncertain outcomes (Higgs et al., 2008). Due to this complexity and the potential of errors, clinical decision research has mainly aimed to understand how HP and patients make decisions in clinical settings and to find ways to help or facilitate the decision-making process. In general terms, and despite the wide variability of perspectives and classifications regarding clinical
decision-making in the literature, there are three main approaches to decision-making in health care: the hypothetic-deductive model, the intuitionist model and hybrid models (Buckingham & Adams, 2000; Banning, 2005).

The hypothetic-deductive approach, also referred to as “information processing model” has been one of the most influential and applied decision-making theories in health care. This model finds its roots in medical decision-making and it aims to describe the so-called “clinical reasoning” (Benner, Hughes & Sutphen, 2008). This model considers decision-making analytical cognitive process predominantly guided by information acquisition from the environment involving the following steps: data acquisition, cue recognition, hypothesis generation, data interpretation and hypothesis testing (Tanner et al., 1987). The criticism of this approach is that it assumes that enough, accurate information is available at the moment of making the decision (Harbison, 1991), and that the person has enough time to process and apply such information.

In response to this criticism, intuitionist theories have aimed to provide an alternative explanation to the use of analytical thinking for decision-making. The role of intuition has been acknowledged (Rew, 2012) and legitimized (Green, 2012) as a basis for decision-making in health care practice; however, the nature of intuition as a concept is still not clear and it has received many definitions and explanations (Lamond & Thompson, 2000). As an illustration, Rew (2000) has defined intuition as “the deliberate application of knowledge, or understanding that is gained immediately as a whole and that independently distinct from the usual, linear and analytical reasoning process” (p.95) and Benner and Tanner (1987) describe intuition as “understanding without a rationale” (p. 23). These authors consider intuition a function of experience where experienced HPs may be more prone or capable to use their intuitions than novice HPs (Benner, Tanner & Chesla, 1996). Cioffi (1997) provided another concept of
intuition, correlating heuristics as an important element of intuitive reasoning. Based on Kahneman and Teversky (1983) heuristic model, Cioffi considered that HPs would use simplifying judgments such as availability heuristics, representational heuristics and anchoring and adjustment heuristics to make decisions. In this regard, Buckingham and Adams’ (2000) clinical decision-making model correlated the heuristic form of intuition with a process of pattern-recognition, positing that decision-making consists of a set of classification activities, common to all health professionals whose purpose is to identify and diagnose actual or potential health problems. The main activities for this model are: data acquisition, data integration, pattern recognition, and clinical judgment.

Given that neither the hypothetic-deductive nor the intuitionist perspective could embrace the complexity of decision-making process in different situations, hybrid models that include elements from both perspectives aim to develop comprehensive frameworks to explore decision-making in clinical settings. To illustrate this perspective, a hybrid model will be introduced: O’Neill’s et al. (2005) clinical decision-making model includes pattern recognition and hypothetic-deductive processes to develop an integrative framework for decision support. The main features of this model are: the information that the HP has before meeting the patient (pre-encounter data), evaluation of the degree of risk of each health problem (risk anticipation and control), application of institutional care procedures (standard care and protocols), situational and patient factors that affect decisions (situational and client modifications) and an assessment of the patient’s condition (hypothesis generation and testing). This model has not been tested in order to assess its efficacy in explaining clinical decision-making.

**PR decisions.** Once a general overview of decision-making and clinical decision-making theories and perspectives has been provided, this section will review articles that focus on
studying HPs’ decisions about PR use. Only four articles were found in the literature and although none of them specifically refer to HPs who work in IPPU nor do they match this proposal’s definition of PR, they were selected due to the absence of optimal studies, with the assumption that the decision-making process might be similar. In order to assess what is known about this topic and therefore assess the gap in the literature, the aim, methods and results of the selected studies will be summarized and, some questions arisen from the findings will be suggested.

First, Lindsey’s (2009) study aims to explore the associations between a number of independent variables or predictors (individual characteristics of nurses, empowerment, patients’ characteristics, patient’s cues and variations) with nurses’ decision to use PR. Among all these independent variables, patient’s characteristics/cues were most strongly correlated to nurses’ decision to use PR. This variable was assessed through four vignettes designed by the author that depict actual patient scenarios in which using a PR might be considered. For each vignette, nurse respondents were asked to identify the first, second, and third priority intervention from the following list of available interventions: verbal de-escalation techniques, use of as-needed medications, room time, seclusion, and restraint. In addition, participants were asked to provide their rationale for each intervention selected. Among all the aspects explored, nurses reported aggressive behavior as the key identifier for nurses to decide to use PRs. Surprisingly, despite the consensus in the most important predictor (patients’ behavior), nurses provided different interpretations about the behavior of the patient and they also differed in their evaluation of the risk in which a patient was to be a danger to themselves or others and in the intervention to use. An explanation for the inconsistency in responses to the same depiction of aggression was not provided in the report. This finding raises the questions: why do nurses respond differently to the
same scenario? Were they evaluating/considering the same aspects depicted in the vignettes? Were they responding to the same question?

Second, Larue et al.’s (2010) study aimed to explore nursing performance during episodes of seclusion with or without restraint¹ in a psychiatric facility. Nurses were asked to describe their interventions through an interview. The interview guide was based on Kayser-Jones’ (1992) decision making model that includes five steps: evaluating behavior by observation and decoding, analyzing and interpreting the situation, planning the intervention by determining a game plan and seeking cooperation with the team on site, intervening through communicative actions, making re-evaluations and readjustments by monitoring how the situation develops. The descriptions of the interventions before PR episodes indicates that nurses first assess a patient’s condition on the basis of his/her behavior, speech, the content of his/her thinking and his mood. Once this assessment is done, “nurses anticipate situations that may result in a client being placed in seclusion” (p. 212) based on their observations and on the service users’ history. The study also suggests that nurses do not often explore the cause of the patient’s behavior and they tend to attribute it to a single factor. The author explains this considering that nurses focus on assessing patient behavior instead of trying to find out what it means. Nevertheless, this study keeps some questions unanswered: How do nurses “anticipate situations” that may result in PR use? Why do nurses not consider the complexity of factors that may influence a patient’s behavior in evaluating the situation?

Third, Moylan’s (2009) report consists of the development of the Moylan Assessment of Progressive Aggression Tool (MAPAT) to study nurses’ decision making in relation to the need

¹ Note that despite this study mainly refers to seclusion episodes, I assume that in order to seclude a patient involuntarily the use of manual restraints are applied. Therefore, Larue et al (2010)and Mann-Poll et al. (2011) studies are eligible for this discussion.
for the PR of the aggressive patient. MAPAT development was based on the non explicit assumption that nurses’ observation of the patient’s escalation of aggression will lead to the identification of a point where no other less restrictive measures of intervention are effective. This cut off point would differentiate when restraining the patient is the appropriate intervention in order to provide safety, and therefore when PR is an ethical practice. Significantly, the theory and research in which the development of MAPAT is based only relates to progression of aggression of the patient, and no other factors that may influence nurses’ decision to use PR were explored in the review of the literature. The MAPAT measurement model consists in ten theoretical constructs that are levels of a patient’s aggression described by ten situations recorded on ten cards and on a video. MAPAT content-related validity evidence is based on the content of experts’ judgments (ten nurses) who agreed that the video reflected the progression of aggression as witnessed in their clinical practice. Nevertheless, the study does not consider the possibility that nurses’ agreement in the evaluation of the level of aggression may not be the same as nurses’ decision to use PR. This can be possible as in Lindsay (2009) study in which nurses disagreed in the intervention to choose in the same scenario.

Finally, Mann-Poll et al. (2011) aimed to explore what is the relative impact of professional, patient and environmental factors on the professionals’ judgment that seclusion is necessary. The authors developed a series of vignettes asking experts through a Delphi procedure to rate the most important variables influencing practitioners’ decision to seclude a patient. The vignettes designed included patient’s characteristics, the patient’s problematic behavior, characteristics of the context and a description of the professional team. The statistical analysis showed that the model only explained 46.0% of the judgments, which may suggest that not all influential factors were included in the model. Although this aspect was not discussed, a
plausible cause for this incomplete list of factors is that professionals who participated in the Delphi procedure may not have been aware of all the existing factors and therefore they did not mention them. This in turn may suggest that there are influential unconscious aspects related to seclusion decisions. Noteworthy, rater characteristics were found to play a more prominent role on seclusion decisions than factors showed in the vignette. This finding contradicts Lindsay’s (2009), Moylan’s (2009) and Larue’s (2010) studies that found patient’s characteristics as the main predictor for PR/S decisions, aspect that was not discussed in relation to these other studies. Likewise, the interaction effect between raters’ and vignette characteristics was not discussed although this finding is also innovative and it may suggest an influence of the rater’s interpretation of the factors depicted in the vignettes. Therefore, this study raises the questions: Are HPs aware of all the factors contributing to PR during the PR decision-making process? Are some factors conscious and some unconscious? If so, why? What determines the conscious-unconscious condition for a PR factor?

In short, reviewing these studies have shown different gaps in the literature. First, there are no studies that explore the particularities of PR decision-making in IPPU as all reviewed studies refer to adult population. Second, studies mainly refer to nurses so similarities and differences between different HPs’ decision-making processes have not been studied. Third, from the methodological point of view, no study used the naturalistic perspective, exploring decision-making through vignettes or interviews, but without on-site methodologies such as participant observation. Fourth, the underlying psychological process and personal experience leading to PR decisions that may explain how MHP decide to use PR and how MHP live PR decisions remains unexplored. Fifth, the reasons for the varying results that correlate to the arbitrariness of PR decisions, despite the existing PR protocols, are unknown.
Theoretical Framework

The review of the literature has shown that there is no comprehensive theory about PR decisions. Thus, this section presents the development of a preliminary model that served to frame the research problem theoretically so that it was suitable for a study. Prior to explaining the qualitative methodology it is important to clarify that this presented bare bone framework has been conceptualized as a learning tool that evolved throughout the research process; it means, that rather than being a fixed frame to guide the study, it was used as a conceptual reference to help build meaning out of the data collected in order to develop this initial framework into a theoretical model that explains the complex reality of PR decisions. As it will be explained in further sections, the final theoretical model was developed through a process of constant comparison between the preliminary model and the data collected, keeping the a priori categories if confirmed by data, eliminating a priori categories that data did not confirmed and generating a posteriori categories emerged by new data. This section focuses on explaining the preliminary model; it was done through a literature review in different fields related to the topic of interest, abstracting from the literature the salient notions that are pertinent to conceptualize the phenomenon of interest. Then, these notions were correlated with theories from different disciples, whose pertinent components have, in turn, been abstracted to constitute the building-blocks of the bare bone framework presented here. Finally, an integration of such components in a set of relations is the construction of a graphic version of the model (Appendix A).

Conceptual foundations

PR decisions as a “trajectory focused on safety”. The first conceptual foundation is PR decisions as a complex and dynamic trajectory compounded by interfering choices (Goethal et al., 2012). In her review of the literature, Goethals et al. (2012) found that nurses were
committed to ensure patient’s safety and that safety was the main rationale for using PR. In addition, as stated in previous sections, PR use has been considered a priority in relation to patient’s safety (Herzog et al., 2003) and there is an increased concern due to the harm consequence of PRs (California Senate Office of Research, 2002).

**PR decisions as a “choice”**. As it was introduced in the section dedicated to decision-making, any decision involves a choice, however, there was no consensus on the definition and description of the quality of such choice. In order to state how and why this choice is defined in this research proposal, two modes of classification for decision will be used: PR decisions will be considered as a choice taken through an intuition (heuristic) and under uncertainty, as it is explained as follows:

**PR decisions as intuitions**. According to the complexity of cognitive resources necessary to make a decision, PR has been considered so far, in the literature, as a clinical practice that nurses individually decide to implement through a clinical judgment guided by analytical thinking. (Larue, Piat, Racine, Menard & Goulet, 2009). Nevertheless, this assumption has not been challenged despite the complex (Goethals et al., 2011) and emergency (Kontio et al., 2010) situation in which nurses decide to use PR. The review of the literature on nurses’ decision-making on using PRs has shown that the underlying cognitive process that may explain nurses’ decision to use PRs remains unexplored and, that professionals and researchers may correlate prediction of aggression with PR decision-making according to the protocol (Larue et al. 2010; Lindsey, 2009; Moylan, 2009), while both entities might not be the same. Due to this, it seems plausible to question the current account of PR decisions as analytical thinking, given that the conditions in which it occurs may not allow for a deliberate cognitive process. In this proposal it
will be considered that HPs’ PR decision-making is based on heuristics. Two main perspectives on heuristics will be taken to conceptualize PR decision making as heuristics.

On the one hand, Kahneman and Frederick (2005) consider that heuristics are mental shortcuts used when a person is confronted with a difficult question, and instead of answering the “target attribute”, he/she substitutes it for a “heuristic attribute” that is easier, and s/he might not be aware of the substitution. This process is called “attribute substitution”, which seems to be applicable to the case of professionals’ PR decision-making. In our case, it would be plausible to suggest that professionals apply attribute substitution heuristics when deciding to use PR; it means, they intend to decide to use PR according to the protocol (target attribute) but as this is less readily assessed than prediction of aggression (heuristic attribute), they substitute the target attribute for the simplest assessment (Kahneman & Frederick, 2005).

On the other hand, Gigerenzer (2008) provides a different perspective on heuristics. This author considers that morally significant actions (in our case, PR use) “can be influenced by simple heuristics” (p. 3). He defines the heuristic process as “fast” because “it can make a decision within little time” and “frugal” because “it searches for only little information” (p. 4). As it has been said, PR decisions are made within little time and with little information. Hence, it seems plausible to hypothesize that PR decision-making responds to fast and frugal heuristics. Likewise, this author also states that heuristics can happen in “split-brain-institutions” (Gigerenzer, 2008); as is the case in psychiatric hospitals where PRs occur. In this case, “split-brain-institution” means that if a deviation from the protocol occurs because PR were not used when necessary, this deviation can be detected (i.e. no PR so a patient or others get hurt), however, if a deviation from the protocol occurs because PR were used when unnecessary such a deviation cannot be detected (i.e. PR used when there would not have been harm without PR).
Thus, only “one side” of PR decision-making consequence can be tested, so the other side is always unknown, therefore not evaluable. Due to this, and in order to avoid this methodological difficulty, a theory that allows evaluating PR use according to the causes instead of the consequences of PRs may be necessary, so Reason’s causal model for safety issues can help solve this conceptual void as it will be explained in the “theoretical matches” section.

PR as a decision under uncertainty. According to the degree of uncertainty of the outcome, a decision about PR intervention can be defined in terms of probability of such event (probability of PR use). Due to this, a theory that accounts for the notion of probability is necessary. In addition, in the particular case of PR use it is important to consider that the lack of clear guidelines that regulate PR use may also indicate that PR use falls under the realm of uncertainty. In this regard, the notions of decisions under risk and decisions under uncertainty (Raiffa, 1997) can help clarify this statement. Both notions are different in that while decisions taken under risk are taken when the probabilities between choices are known (i.e. when flipping a coin we know that the probabilities of getting heads or tails are 50% each), decisions under uncertainty imply that the probabilities of each option are unknown. The latter seems to reflect PR decisions when a mental health patient is agitated, given that the probability that someone gets hurt if PR are not used is unknown, as the probability of someone getting hurt when PR are used is also unknown; taking into account that there is risk of harm in both cases and that according to PR protocols, risk of harm should be the main criteria to guide decisions on PR use. Coming from the phenomenological perspective of experienced decisions, we can consider that the unknown probability inherent to PR use is embodied and related to the knowledge and experience that each person (HP) possesses (Ramsey, 1926). Ramsey’s epistemic perspective on probabilities considers that no one estimating a degree of probability simply contemplates the
two propositions (i.e. probability of harm if PR vs. probability of harm if no PR) which are supposed to be related to it, instead the person always considers inter alia her/his own actual or hypothetical degree of belief (degrees of belief refer to the subjective probability assigned to a certain proposition), assuming that beliefs are bases of possible actions. Therefore, in our particular case, it is plausible to suggest that HPs’ decisions to use PR are guided by the degree of belief (subjective probability) assigned to risk of harm if PR are used vs. the degree of belief (subjective probability) of risk of harm if PR are not used; as stated by a nurse during an interview, nurses seem to estimate probabilities: “well, I am not saying that we anticipate the behaviors, but we might anticipate a likelihood that they (patients) might act in a certain way or not”.

**PR as regulated decisions.**

The ethical and legal implications of PR interventions imply that laws, standards of care and protocols, regulate PR decisions. Hence, HPs’ decisions about PR should be guided by these regulations.

**PR decisions as an experienced moral conflict.**

The last foundational conceptualization for this proposal is PR decision-making as an experiential psychological process. As it has previously hinted in the introduction, PR use occurs within a given context in which professionals are involved and situated. As a nurse verbalized in an interview about PR decisions: “I was present for a restraint episode (...) it is very important to be present all the time like immediate instants, like now, now, now, now, now...”. Given that the nurse was present and embedded in the situation it may be plausible to suggest that PR decision-making process is not merely a decision that professionals make, but as a decision-making process that professionals also experience. In addition to this, it has been introduced that
PR use has human rights implications and that nurses suffer “moral stress” (Reagan, 2010) when deciding to use PR, hence PR is considered in this study as a moral action (Haidt, 2001).

Selected theories or “theoretical matches”

Hollerbach’s (1981) fertility decision-making model. In relation to the notion of PR decisions as a trajectory, a theory that considers decision as a process is necessary. This is the case of the model developed by Hollerbach (1981) that conceptualizes fertility decision making as a process, with decision making before conception (stage one) different from decision making during pregnancy (stage two), and also different from the birth of a child (stage three), treating each birth analytically as a separate event. This is relevant to our focus on PR decision making in that the elements included in Hollerbach’s fertility decision-making model will help treat each PR decision as a separate event, but this event is at the same time compounded by stages; it means, the decision of initiating PRs is different from the decision to maintain PRs, this in turn is different from the decision to terminate PRs, but importantly, at the same time these three stages are interrelated and conform a single unity of analysis.

Reason’s Causal Model for Safety in Clinical Settings and Bowers’ Safewards Model for Conflict and Containment. Given that safety is the main rational for PR decisions and that the excessive use of PRs can be considered an error, Reason’s (1990) theory of safety issues in medical institutions seems particularly pertinent in framing the aspects of PRs related to safety. Reason considers that the safety issues found in medical facilities are not individual accidents but are organizational accidents that are beyond an individual’s control. This would imply that in order to explore PR use as a safety issue we should not focus on HPs as individuals but on the system as a whole. Hence, safety problems like excessive PRs use can be caused by two reasons:
- Cause A: Assign complex tasks to weak cognitive functions (for example, memory, attention or perception). Thus, these accidents can be prevented if processes are designed to minimize the dependence of these functions.

- Cause B: Psychological precursors, which refer to working conditions that are predisposed to accidents (for example, work load, inadequate scheduling, staffing, lack of time). Thus, these accidents can be prevented if there is better design and the implementation of better working conditions.

Therefore, this theoretical perspective provides an account for PR decisions with a focus on safety, affected by situational, personal and contextual factors. Considering Reason’s model in order to study PR decisions it would be necessary to explore how each PR decision is affected by a systemic net of factors. In this regard it can be useful to also include Bowers’ Safewards Model for Conflict and Containment in psychiatric wards. This model does not focus only on PR but it seeks to explain why all conflict behavior and containment methods events happen collectively in adult psychiatric wards. Bowers (2013) has clustered different events as “conflict” and different methods as “containment” considering that same patient may perform different kinds of conflict behavior and that within the same ward rates of conflict and containment correlate. Based on this, the Safewards Model is based on the assumption that different conflict events and containment actions have common causes. The key notions that build the model are: originating factors, staff modifiers, patient modifiers, flashpoints, conflict and containment. The model explains conflict and containment as a dynamic reciprocal relation originated by a set of conflict factors that generates flashpoints that in turn can trigger a conflict incident leading to containment. Likewise, the model shows that staff can influence conflict and containment at every level of the chain of events. In relation to the specific set of factors that influence conflict
and containment, the model describes six domains: the staff team, the physical environment, outside hospital, the patient community, patient characteristics and the regulatory framework. The main problem to use this model as a framework for this research is that the Safewards model does not explore the HP’s decision-making process to use PR.

**Buckingham’s General model on clinical decision-making.** Once PR decisions have been justified to truly be decisions taken through heuristics and under uncertainty, it is possible to account for PR decisions using a theory of choice such as Buckingham’s General Model of Clinical Decision Making (Buckingham & Adam, 2000). In addition, another important aspect of PRs decisions is that not only nurses, but also different HPs are involved in PR decisions. Hence, a framework that would allow exploring the decision-making process of all HPs involved in PR decisions is necessary. Buckingham’s model (2000) assumes that there is a similar structure to clinical decision-making that goes beyond disciplines and scope of practice. Coming from this premise, this general model of psychological classification links different theoretical approaches into a unifying framework, which considers that any clinical decision is based on a process of classification, assigning patients to categories through a process of concept formation and weighing of activities. Particularly, decisions are based on a cognitive process that consists in a series of tasks, which range from data acquisition, data processing, classification, judgment and finally, decision making. This framework will serve to explore the underlying cognitive tasks of PR decisions taking as a reference the PR protocol that regulates this practice.

**Gilligan’s Theory of Moral Development.** The notions of PR experienced decisions and PR as a moral action (Haidt, 2001) can be theoretically embraced by Gilligan’s theory of moral development. Gilligan’s framework on the ethics of care has been considered a paradigm shift in the conceptualization of morality. This author considers that what makes a “moral voice”
(Gilligan, 1993) moral is its connection to who we are and the certainty that it entails. This implies a movement toward the particular, away from the universal so that morality and subjectivity are not considered arbitrary, abstract concepts, but instead are each person’s way of staying in the world. According to this, the moral language is constitutive of, not peripheral, to each person. Thus, from this perspective, the content of the moral language is social, linguistic, contextual, historical, cultural and located (Hekman, 1995); in other words, rooted in each person’s life. As such, a person’s moral voice is a product of where he/she is situated, which implies that different cultures, and different kind of subjects have unique and different moral voices, different “forms of living” (Wittgenstein, 1958).

The relevance of this perspective lies in the inclusion of a multiplicity of voices in the moral realm that challenges the supremacy of the separate, autonomous self of the modernist tradition, and allows people to speak in their own moral language from their concrete position of their own life. In particular, as an alternative to Kohlberg’s morality that emphasizes the ideal moral person as an autonomous individual, Gilligan proposes the “relational self”, a self that is formed through relations with others and with the world in general, since the early years of childhood. Being relational, this self’s moral thought is oriented towards caring and maintaining the welfare of others, and conforms to a different approach to the ethics of justice; the ethics of care.

**Components for tentative theoretical framework**

**Stages.** The PR decision-making trajectory is compounded by three stages: before (initiating phase) PRs are used, during (maintaining phase) the time PR are implemented and ends after (terminating phase) PR are removed (Goethals et al., 2011; Kontio et al., 2010; Ludwick et al., 2008). As previously explained, this study assumes that the decision of initiating
PR is different from the decision to maintain PR that in turn is different from the decision to terminate PR, but importantly, at the same time these three stages are interrelated and conform to a single unit of analysis.

Factors. Considering that PR decisions are focused on safety and are affected by situational, personal and contextual factors, a previous review of the literature regarding these factors has illuminated the following net of relations between factors and the use of PR; each level of relationship has been correlated as pertaining to a particular domain and is explained as follows:

The factors affecting PR use belong to three different and interconnected domains of relationship: tangible, structural and transversal. The tangible domain refers to the physical elements that interact around the actual practice of PR; it includes youth, family, staff and setting. Their topics refer to observable aspects, experienced and/or susceptible to modification by an intervention (i.e. youth behavior, family involvement, staff training, setting lay out). The structural domain refers to systemic elements that influence and regulate PR use; it includes organizational, legal and economic factors and their topics are impersonal and not directly located in the scope of practice, but they externally affect and shape it (i.e. policies, laws, health care systems). Finally, the transversal domain refers to implicit elements that affect PR use indirectly, as they are immersed in the tangible and structural domain; the transversal domain includes ethical, historical, contextual, social and scientific factors and their topics refer to assumptions, traditions, theories, ideologies or conceptualizations present throughout the analysis (i.e. debate, PR appropriate use, ethical dilemma). In short, the tangible and structural domains appear to have a direct relation with PR, relating to each other vertically so that the structural
domain is placed over the tangible domain; by contrast, the transversal domain exerts influence horizontally across the tangible and structural domains, which in turn affects PR.

**Tasks.** Considering that PR decisions deal with choosing between options whose outcomes are uncertain, Buckingham’s model of clinical decision-making provides a framework to explore what tasks are necessary in order to make decisions based on available information. Importantly, despite being a process, the tasks are different from the stages of the process, as each stage of the process is compounded by a series of decision-making tasks that are in turn affected by other factors. In the case of PR decisions, the task would be summarized as follows:

1. Data collection: pre-encounter information, cues from the patient, the environment, etc.
2. Data processing:
   a. Determine which attributes/cues are relevant: i.e. patient’s behavior
   b. Measure these attributes: i.e. observe patient's voice tone
   c. Generate internal value: i.e. low or high voice tone level
3. Classification or pattern recognition: i.e. low or high agitation level
4. Judgment: i.e. low or high risk of harm level
5. Decision: PR vs. no PR

**Experienced moral conflicts.** This component refers to the conflict (Bigwood & Crowe, 2008) experienced by HPs when deciding whether or not to use PRs, as being a conflict related to the imperative of safety and control while keeping the therapeutic relationship.

**PR regulations.** Laws and protocols regulate PR decisions; hence, such regulations constitute the element that HPs should take as a reference to decide about PRs. Particularly, for this study, PR regulations are the existing protocols in the IPPUs that will be studied: PR protocol of the General Universitary Hospital (Contención mecánica para pacientes ingresados
en las unidades de hospitalización breve de psiquiatría, 2010) and the PR protocol of the Pediatric University Hospital.
Chapter III: RESEARCH DESIGN AND METHODS

A qualitative exploratory research design with ethnographic and phenomenological approaches was used to address the research questions of this study. In this chapter the epistemological approach that supports the research design is discussed; the study design, methodology, setting, participants, and the qualitative research data sources and collection methods are described; and the process of data analysis is explained. The limitations of the study, as well as the impact of the researcher as the data collection instrument, are also discussed.

Epistemological approach

Coming from the phenomenological perspective, that we have previously introduced, and the notion of PR as a moral action (Haidt, 2001), and in order to achieve methodological congruence between the method and the object of study, it seems appropriate to use a method that, besides being hermeneutical, also accounts for the notion of nurses as moral agents. This connection between phenomenology, psychology and morality is present in Gilligan’s framework on ethics of care, which allows exploring the psychological dilemma that underlies moral conflicts (Gilligan, 1989). This new form of ethics requires an alternative method, so that the moral voices can be interpreted: the relational relative context. This method allows exploring the ethics of care linking a person’s narrative discourse and selfhood. Relational patterns are not taken as facts or evidence, but by contrast Gilligan uses the term “stories”, a term that suggests telling and interpreting. As such, a person’s stories reflect their morality and subjectivity as there is no clear division between words and actions, language is something that we do, it is a form of life (Wittgenstein, 1958); different moral language constitutes different moral forms that in turn constitute different forms of life. In Gilligan’s words, “the way people talk about their lives is of
significance, that the language they use and the connections they make reveal the world that they see and in which they act” (Gilligan, 1993, p. 2).

This approach seems particularly pertinent for this study given its emphasis on caring and relationships (Harbison, 1992; Millete, 1994), its notion of morality as arising from the experience of connection and its method of “the listening guide” (Gilligan, Spencer, Weinberg, Rhodes & Yardley, 2003) to study the psyche to understand a person’s moral decisions (Gilligan, 1982). Furthermore, this author considers moral decisions as “insistently contextual and the individual’s process and reasoning can be best understood when the person describes a personal experience” (p. 74). In particular, in order to get the person’s personal experience on moral decisions, Gilligan suggests interviewing the person from a relational relative context (Gilligan, 1993) in which researchers learned as much about themselves as about their subjects, considering that a person’s stories reflect their morality and subjectivity (Hekman, 1995).

As a relational and phenomenological approach, the researcher is the “tool” both to collect the data through an interview and then to interpret it during the data analysis process. Due to that, prior to explaining this study’s methodology it is essential to acknowledge the author’s personal and professional connection with the phenomenon of interest. In order to explore such epistemological relation, the author will use the language and the logic of her own thought, organizing the discourse in a relational and chronological way, following the three stages stated in Gilligan’s theory of moral development (1982): orientation to self, morality of care and morality of nonviolence. This way, the author could explore her own moral development in order to explain a change in her moral belief: why she has moved from being a nurse who used PR on children with mental disabilities, to quit clinical work and become a nurse, aiming to find out how to stop this practice. The process of developing an ethic of PR use has been shaped by the
author’s personal and professional experiences of moral conflict when facing the life choice of using PR. Due to this, and in order to explore more comprehensively the inner places where this paper’s topic is rooted within the author, and therefore be able to include this moral stance in connection with the process of data collection and analysis, a detailed description of the author’s morality in relation to PR use is explained in Appendix B “My moral development towards an ethic of care”.

**Methodology**

In order to achieve internal consistency, a research plan was developed that links the phenomenon’s conceptual foundations, the research questions, the epistemological approach, the strategy of inquiry and methods (see Appendix C). First, the phenomenon of PR decisions has been defined as experiential, moral, contextual, relational and regulated, which connects with Gilligan’s perspective of morality as arising from the experience of connection, reality as contextual and psychological dilemmas as moral conflicts. Coming from this perspective, two different but complementary methodologies are required: on the one hand, phenomenology as a methodology that focuses on a person’s experiences and on the other hand, ethnography as a methodology that explores the social and cultural reality. Finally, methods were selected according to the strategies of inquiry: phenomenology demands in-depth interviews to explore person’s lived experience and ethnography requires participant observation in order to capture the social and cultural reality in which PR decisions happen.

**Study design.** Qualitative exploratory design including two methodological approaches: phenomenology and ethnography.

**Setting.** An understanding of the settings within which the HP’s decisions and PR events took place is integral to data collection and data analysis in qualitative research with an
ethnographic approach. In this study the setting has been conceptualized not only as the context for the research process, but as one of the factors that influenced both the research process and the phenomenon of interest. Because of the salience of contextual factors, this section will include a brief description of the setting’s characteristics aiming to explain how the logistics affected the research methods and abstraction of findings.

**Community of Madrid Health Care System.** The Spanish healthcare system is funded by social security contributions and combines public and private healthcare. The national government sets the overall budget and general trends for the country, but each region (the so-called “Autonomous Communities”) has its own governing body. Thus, given the political regionalization of Spain, this paper will focus on the Community of Madrid (CM).

The CM is one of the seventeen Autonomous Communities in Spain and as such, its government takes individual responsibility on the health care system of the region. To explore in detail how the health care system is organized is beyond the purpose of this proposal, however, it is important to acknowledge that the CM provides a net of resources for attending to minors with mental health problems at the primary and specialized level. Within the specialized level there are two IPPU, which constitute the context for the use of PR in this study. Each of the IPPU belongs to a different public hospital, one to a General University Hospital and the other one to a Pediatric University Hospital (to keep the anonymity of the study’s participants, the names of the units will not be used).

**General University Hospital.** The GUH is a public hospital that belongs to the Madrid Health Service. This hospital is outstanding in its technological resources and its academic and research activities, being a reference at the national and international level in different specialties. Among the specialties, the Psychiatry Service Department is located in the
psychiatric building and provides inpatient and outpatient services for adults and minors. Particularly, the attention for minors is materialized in the “Section of Adolescent Psychiatry”, which includes an inpatient unit, liaison services and Special Programs (i.e. Autism, minors offenders, eating disorders, personality disorders, etc.). The inpatient unit was the setting for this research, and its main characteristics are described as follows:

**IPPU at General University Hospital.** The IPPU at GUH (U1), admits minors between 12 to 17 years old from half of the health areas in the Community of Madrid. It aims at assessing and stabilizing patients with acute psychiatric episodes that require inpatient hospitalization for an approximate length of two to three weeks. Significantly, the U1 is known by its “excellence” and it has received several awards: Award Infancia 2009, Best initiatives for patient’s service, Pfizer award to Innovation and Excellence in Clinical Management, V and VI Award to Excellence at Community of Madrid, I Award to Clinical Excellence at Spanish Psychiatry Society.

This is a resource embedded within the Psychiatric and Mental Health Services Comprehensive Network of the Community of Madrid, which means that U1 works in collaboration with the other resources of such network outside the hospital to guarantee the continuity of care of the patient (i.e. day hospitals, mental health community centers, etc.). In addition, given that the adolescents need to receive education by law, the U1 has teachers that in turn coordinate with the adolescents’ schools. In relation to the organization of the work inside the unit, an interdisciplinary professional team carries out the care intervention, coordinated by a head of the department, including psychiatrists, psychologist, nurse manager, nurses, auxiliary nurses, social worker, occupational therapist, teachers and auxiliary for general services. Likewise, the U1 also coordinate with other units and resources within the GUH (i.e. emergency
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The U1 is located on the first floor of the east wing in the psychiatric building; it is a closed unit with a specific access through a locked door with a doorbell. There is one auxiliary of general services in charge of guarding the door and open it to those who do not have the key (only healthcare team members have the key). There is also a secondary door that may be opened in case of an emergency. Once inside the unit, on the right hand side by the entrance, there is the nurse control delimited by a wooden bar forming a corner located in the middle of the main corridor of the unit. The nurse control has a computer, documents and forms, chairs, monitors for observation and adjacent to it there is “the security room” (to contain agitations and time outs). Likewise, the nurse control also connects with an internal corridor that includes staff bathroom, the medication room, the patients’ belongings room, the wareroom? and the room for restraint belts. In front of the entrance door and nurse control, there is the TV room and the dining room, adjacent to each other. The walls that divide the TV room and the dinning room within this central area are transparent to allow observation. On the right and left side of the central area the main corridor extends, hosting the so-called “girls’ side” and “boys’ side” respectively with opaque walls painted in green and white, with motifs of Madrilean monuments.

U1 has capacity for twenty beds, it has ten doubled rooms (five in each side) in addition to the “security room” located by the nursing control. The left side (“boys’ side”) includes the nurses’ room, the group room, the “reflection room”, boys’ bedrooms and doctors’ offices. The right side (“girls’ side”) includes the “security room”, the utility room, the linen’s room, girls’ bedrooms and doctors’ offices. Patients’ double bedrooms have two single beds, one small table, two chairs, two lockers and one bathroom (with closed door) and its door can be locked so that entrance is not possible but way out is always possible. Likewise, each room has a round window
and cameras to facilitate observation; there are also cameras at both extremes of the main corridor. There are two camera monitors, one at nurse control and other at the nurse station. At the end of the “boys’ side” there is a door that connects with a terrace that was closed and under construction during the observation period. Significantly, only patients’ rooms had a glass on the door and cameras; doctors’ offices had opaque doors and no cameras.

In addition to the physical description of the unit, in order to get an idea of its dynamics it may be useful to provide an overview of when, where and who performs the scheduled activities in the unit. The relationship between the time, space and people involved in the unit activities is as follows: 7:45am- nurses’ handover (nurses and auxiliary nurses/nurses’ station and nurse control respectively); 8:30am-wake up, make beds, order room and shower (auxiliary nurses, patients/corridor, patients’ rooms), morning meeting (psychiatrists, psychologist, social worker, teachers, residents, students, nurses, one auxiliary nurse/TV room); 9:15am-take medication, measure vital signs (nurses, patients/dinning room) and breakfast (nurses and auxiliary nurses, patients/dinning room); 9:30am-mouth hygiene (nurses and auxiliary nurses, patients/patients’ rooms); 10am- therapeutic group (psychiatrist or psychologist, patients/group room); 10:30am to 1:30pm- occupational therapy (occupational therapist, patients/TV room), school (teachers, patients/dining room) and doctors’ consultation (psychiatrists, nurse, residents, patients, relatives/doctors’ offices); 12pm-juice (nurses and auxiliary nurses, patients/corridor); 1:30pm-lunch (nurses and auxiliary nurses, patients/dinning room); 2pm- mouth hygiene (nurses and auxiliary nurses, patients/patients’ rooms); 2:15pm-siesta, activities (nurses and auxiliary nurses, patients/patients’ room or TV room); 2:45- nurses’ handover (nurses and auxiliary nurses/nurses’ station and nurse control respectively) 3:30pm-occupational therapy (occupational therapist, patients/TV room); 4:30pm- snack and medication (nurses and auxiliary nurses, patients/dining
Finally, another important aspect to describe the setting is the model of care, norms and regulations that guide behavior within U1. In regard to the model of care, the main traits that describe it are “excellence”, “adult model” and the “privileges” system. In regard to “excellence” it refers to the application of the EFQM Excellence Model (European Foundation for Quality Management)² to the U1, which impregnated the manner of care having HPs organized in working groups to assess the quality of care and propose improvements, aiming to “give the maximum” to “achieve the highest standard of care”; the excellence framework also affected the U1’s culture in setting standards of capabilities and strength “we are very British here, you cannot show your weaknesses”. The quality of care is also assessed through a questionnaire given to patients’ relatives when they are discharged. Given that the U1’s belongs to a general hospital, its design of the adult model was based on the other adult psychiatric units that already existed in the GUH when the U1 was created; for example, parents do not stay on the ward and

² The EFQM Model is a non-prescriptive business excellence framework for organizational management systems that encourages the collaboration, cooperation and innovation, designed for helping organizations in their drive towards being more competitive (EFQM, 2015 http://www.efqm.org/the-efqm-excellence-model)
patients are admitted in double rooms, the principle of autonomy is prioritized over “paternalistic” care, patients can express their opinions and make their requests in the “assembly” and doctors’ consultations. As far as the “privileges” system is concerned, despite each psychiatrist/psychologist may use different psychological theories for their therapeutic activities, behaviorist theory guide HPs’ work to manage patients at the U1. The “privileges” system consists in establishing a set of privileges (phone-calls, visits and outing) that the patient needs to “re-gain” throughout his/her admission until the discharge according to his/her progress (i.e. depending on the weight, behavior, etc. psychiatrist allows the patient to have phone-calls, visits and outing). Likewise, the “privilege” system may also consist in taking away rights that patient had when admitted (i.e. leisure time outside his/her bedroom, music, having meals with others, etc.; As an illustration “complete timing” means that the patient must stay inside his/her room at all times except for common mandatory activities). In line with the model of care, the rules and regulations at the U1 refer mainly to space, time and activities regulation, belongings and social interactions; Space is regulated through keys that only HPs posses, patients do not have free access to HPs dependencies while HPs have access to patients’ bedrooms. Patients are supposed to be outside their room during the day, and except an additional measure or penalty, they can only be inside the room during sleeping time. Likewise, nursing team only work inside U1 while psychiatrists, social worker (their offices are outside the U1) and guards work inside and outside the U1. Time and activities are regulated through the schedule of activities and routines, considering that unit programmed activities are mandatory (please see schedule of activities in former paragraphs in this section). Activities that are forbidden are: smoking, bring food and beverages, talk on the mobile phone (written), sexual relations (non-written). Patients’ belongings in the U1 are supervised by the nursing team, patients are allowed to have a
maximum of six personal items, dangerous objects are not allowed (scissors, knives, forks, tweezers, lighter, glass, medication, belt, suspenders, piercings will be removed, mobile phones, games, candies, tobacco, three-ring notebook), allowed objects (books, pastime, “adequate” magazines, mp3, swatch), patients can have their own clothes (except tanga, pajama with laces, stocking, leggings). In addition to the norms that regulate patients’ behavior, there are protocols to guide HPs’ behavior such as the “eating disorder protocol”, “suicidal risk protocol”, “guarded patients”, “insomnia”, etc. Among these protocols the one of main importance for this study is the PR protocol. Noteworthy, the PR protocol for U1 is the same as the one as the inpatient psychiatric unit for adults and includes the following PR definition: “method of physical immovilization through the use of authorized equipment, with regard to the behavioral control of the psychiatric patient, carry through health care professionals trained in PR use, aimed to safely limit the movements of part or the whole body of a patient to prevent him/her from harming him/herself or others and/or jeopardizing the therapeutic milieu”. On this regard, it is also important to mention that the Regional Office of Mental Health (Madrilenian Health Care System) released the document the “Recommendations for actualization of Therapeutic Immobilization protocols” (March, 2013). This document recommends to “exclusively use the term Therapeutic Immobilization, more appropriate, as it is a measure included in the therapeutic plan of a patient, in a professionalized and humanized health care context” (p. 5). The Therapeutic Inmovilization is defines as: “exceptional measure applied after all other measures have failed, during its application the dignity of the patient must be scrupulously safeguarded rejecting his/her stigmatization with the purpose of minimizing the emotional impact that this measure may have on the patient or relatives or close relations. Therefore, terms such as ‘mechanical restraints’, ‘mechanical fastening’, ‘physical restraint’ or ‘movement restraint’ or
any similar term will be avoided as these terms only refer to its coercive aspect”. (p. 5). Both documents acted as a reference to guide HPs’ behavior in relation to PR use, however, the “Recommendations for actualization of Therapeutic Immobilization protocols” was not an official document at U1 and it seemed to be more related to the nursing team that to the entire healthcare team.

**Pediatric University Hospital.** The Pediatric University Hospital (PUH) is the first pediatric hospital in Spain, funded in 1881. Formerly, it was run by nuns and the Catholic influence is obvious as each unit is named after a saint’s name. This hospital is public, it belongs to the Madrid Health Service and it is the only pediatric hospital with all pediatric specialties in the country. In total, the hospital has a capacity for 180 beds and provides health services mainly to children from Madrid, but as it is a pioneer center in different specialties, it also attends cases from all regions in Spain.

**IPPU at Pediatric University Hospital.** The IPPU at PUH (U2), admits minors between 0 to 17 years old from the Community of Madrid. It aims at assessing and providing inpatient attention for acute episodes of severe mental disorders for an approximate length of two weeks to one month. U2 is one of the oldest pediatric psychiatric units in the country, and it belongs to the Hospital’s Psychiatric department. This department also has a day hospital, outpatient services, and another IPPU focused on nutrition disorders (it opened one year before the data collection for this research started). U2 is also part of the Psychiatric and Mental Health Services Comprehensive Network of the Community of Madrid so it also works in collaboration with other community services in addition to those located within the hospital.

U2 is located on the ground floor of the hospital building; it is a closed unit with a specific access through a locked, double door with a doorbell. The entrance door has a camera whose
monitor is in the nursing station, place where there is a switch that opens such door. Once inside the unit, there is a central corridor that starts at the entrance door and ends on the opposite extreme with the “living room”. The walls in the unit are opaque, painted in yellow with no motifs; handicrafts decorate the walls. Importantly, a transparent door divides the long corridor, and so U2 in two parts: “the blue ones” and “the white ones”. “The blue ones” (“los azules”) side, also so-called, “eating side” (“el lado de alimentación”) is the closest to the entrance door and it accommodates patients with eating disorders in double rooms. On this side, there are also doctors’ offices, the nurse manager’s office, the lining room, the wareroom and, next to the transparent door, the nursing station. The nursing station is located in the middle of the unit and it has in turn three parts: a bar delimits the central part of the nursing station from the corridor so it is visible and accessible without the master key. It contains computers, unit documents and forms, chairs, and a scale. The left part is a closed room adjacent to the central part that contains the medication, the restraints belts and other materials. The right part is another closed room adjacent to the central part; it is the nurses’ lounge and it has the switch that opens the entrance door, monitors from the U2’s cameras, armchairs and a table. On the left of the nursing station there is the transparent door that divides the corridor, and inside this area there is the “white ones” also so-called “the acute ones” (“los agudos”). This area is the farthest to the entrance door and it accommodates patients with acute psychiatric disorders such as psychosis, suicide attempts, behavioral disorders, etc. in single rooms. There is no other type of room or office on this side except for the living room on the opposite extreme of the long corridor. The living room has tables, chairs, a TV, and it is used for school activities, workshops, meals, and shared leisure time. Adjacent to the rooms located at the right side of the corridor there is a colonnade that inside has table tennis, table football, chairs and tables. The colonnade in turn opens to a
playground where there is a basket, trees, plants and grass.

U2 has capacity for 17 beds, it has five doubled rooms in the “blue ones” side and seven single rooms in the “white ones”. Patients’ double bedrooms have two single beds, one small table, two armchairs, two lockers and one bathroom (with closed door); significantly, double rooms are equipped with oxygen, air, monitors to control for the somatic comorbidity of the eating disorders. Patients’ single rooms have one single bed, one small table, one armchair, one locker and one bathroom (with closed door); they are no equipped with oxygen, air, or other somatic monitors. Patients’ rooms are decorated with patients’ pictures and handicrafts. Their doors can be locked both to block entrance and way out. Both single and double rooms have a round window and cameras to facilitate observation; there are also cameras in the colonnade, entrance and the living room. There is one camera monitor at nurse station (the monitor changed during the field work from a rotating monitor that sequentially showed the different camera to a monitor that simultaneously showed all cameras with the application to select one).

How the time is distributed throughout the day in the U2 also depends on the patient’s schedule of activities. To provide an overview of the unit’s dynamics, the relation between the time, space and people involved in the scheduled activities is as follows: 7:45am-nurses’ handover (nurses, auxiliary nurses/nurses’ station), 8:00am-wake up, open bathrooms (orderly/patients’ rooms), 8:20am- measure vital signs (nurses/nurses’ control), 8:30am- make beds (patients’/patients’ rooms), nurse to doctor handover (nurse, psychiatrist/ doctor’s office or nurses’ control), 9:00 am- doctors’ visits (psychiatrists, nurse, students, patient/ patients’ rooms), 9:45am-breakfast, medication (nurses, auxiliary nurses, patients/dinning room), 10:00am- open bathroom, glass of water (orderly, auxiliary nurses/patients’ rooms), 11:15am- workshops (volunteers, patients/colonnade) or school [Monday, Wednesday, Friday high school; Tuesday,
Thursday primary school] (teachers/dinining room), 12:30-shower (auxiliary nurses/patients’ rooms); 1:30pm lunch (nurses, auxiliary nurses, patients/dinining room); 2pm-Rest (patients/patients’ rooms); 3:30pm-open bathroom (orderly/patients’ rooms); 5pm- snack and medication (nurses, auxiliary nurses, patients/dinining room); 5:45pm- workshop (volunteers-dinning room/terrace); 6:30pm- glass of water (auxiliary nurses, patients/nurse control), 6:30- 7:45 family’s visits (orderly, relatives/unit entrance to patients’ rooms); 8:00pm-8:40pm dinner (nurses, auxiliary nurses, patients/dining room); 8:40pm-9:40pm Rest (patients/patients’ rooms); 10:30pm- open bathrooms and put belongings in lockers (orderly/patients’ rooms); 11pm- snack and medication (nurses, auxiliary nurses, patients/patients’ rooms); 11:30pm- switch off rooms’ lights (nurses, auxiliary nurses, patients/patients’ rooms).

To finalize an overview of U2, it is important to describe the model of care, norms and regulations that guide behavior within U2. The model of care is characterized by a number of main traits: “pediatric model”, “specialization on eating disorders”, “routine and order”, “authority”, “0 privileges”. In regard to “pediatric model”, the U2’s belongs to a pediatric hospital and staff’s background and contextual references are pediatric; in participants’ words “first of all, they are children”. In relation to this, due to staff’s specialization on pediatrics it was decided that patients under 12 years old were only admitted to the U2. To illustrate how the “pediatric model” operates, parents stay on the ward and they are “admitted with the patient”, not autonomy but “dependency on the doctor” is a principle considering that the “control locus” will be progressively transferred from the healthcare team to the patients, patients cannot express their opinions in public spaces such therapeutic groups or the “assembly”, instead they have a “diary” where they can write about their feelings, desires, request, etc. (only psychiatrists are authorized to read the diary). As far as “specialization on eating disorders” is concerned, the U2
was conceived as a “unit for adolescents with major anorexia”; hence, U2 is organized and structured based on the “eating disorders protocol” that establishes in advance the duration of admission (one month), the stages of admission (1st week: parents 24hours with patients in their room, only diary; 2nd week: parents’ visits, patients start unit’s activities; 3rd week: patients’ go outside the unit and to their normal school; 4th week: discharge preparation), the expected behavior (they have to eat everything within a pre-set time, at certain rhythm, with specific manners; each action has its correspondent consequence). This protocol gives a sense or predictability, which in turn influences the third characteristic of U2: “order and routine”; this refers to programmed admissions, fixed schedules, programmed activities, behavior routinization, regulated movements within U2 (i.e. patients are not allowed to be or walk freely along the corridor), emphasis on keeping a quiet environment (i.e. the sound level on the unit was very low), in addition, patients with anorexia played a “normative function” as “they are very organized and quiet, they rule”. “Authority”, this is based on two principles: “to use all medical power without violence to revert patients’ power with violence” and “nurse manager is the owner of the unit, nurses administer the schedule, norms, doctors’ orders; nurses are expected to behave as adults not establishing alliances with the patients, and doctors playing the parents’ role nor becoming patients’ friends”. Patients are not supposed to choose but to follow the pre-established rules, “norms are first to be able to think”. Finally, the “0 privileges” system consists in that when admitted, patients under the “eating disorders protocol” have nothing with them except their parents and the diary. They need to rest in bed all day except to attend meals and go to the bathroom. This system put patients under total dependence on the healthcare team that according to conduct, they can regain the so-called privileges (the list of privileges are: accompaniment, living-room, diary, shower, music, reading, painting, games, school at the U2,
group therapy, workshops, external school, study, external workshops, outing to colonnade, visits, outing to external corridor within the hospital, theater/cinema, outing to street, outing to home, programmed physical activity (colonnade, gym), food (diet, water, supplements). The “0 privileges” system does not apply to the “acute patients”, in which the psychiatrist in charge decides about the privileges “external outing”, “visits” and “accompaniment”, depending on the case and nurses decide about privileges that relate to within U2 realm (living-room, music, reading, painting, games, workshops, study, outing to colonnade). To complement the description of the model of care, the rules and regulations at the U2 refer mainly to food related issues, space, time-activities regulation, belongings and social interactions; food related issues refer to eating style (eat everything, no skip meals, eat in certain amount of time, adequate use of cutlery, do not clear cutlery with napkin, do not leave food in the cutlery, plate or table, do not throw away food, chew what it is necessary, adequate posture, do not go to the bathroom until 1 hour last meal), stimuli control (menus will not be modified, patients will not know which menu are having, patients will always have meals in same table and their place is assigned by nursing team, patients cannot do anything but eat during meals), meal as a positive social interaction (background music, have a conversation with no pathological topics, nursing team correct behavior when inadequate eating behavior); Space is regulated through keys that only HPs possess (psychiatrists do not have keys and nursing team or guards opens doors for them; guards are those who are mainly in charge of opening-closing doors), patients do not have free access to HPs dependencies while HPs have access to patients’ bedrooms. Patients must be inside their room during the free-time and resting time, they can only be outside their room during supervised activities by HPs. Likewise, the nursing team only works inside the U2 while psychiatrists, social worker (their offices are outside the U2) and guards work inside and outside
the U2. Time and activities are regulated according to the schedule of activities and routines. Some activities are forbidden (use mobile phones, relatives cannot use patients’ w.c.), others are mandatory (e.g. arrange the bedroom and make the bed, all programmed activities), and others are regulated (psychiatrists prescribe accompaniment and visits which are supervised and could be modified by the nursing team; patients’ should not exchange their personal contacts for meeting outside the hospital). Patients’ belongings in the U1 are supervised by the guards and nursing team, patients are allowed to have personal hygiene products (except foam, cologne, make up, mirrors, tweezers, hair removal products, acne-skin treatment products, mouthwash), clothes (three change of underwear), music (mp3, Radio with earphones), one book (magazines are not allowed), accessorizes (bracelets only those done during the workshops, maximum three), school backpack only with one case. Non-allowed items are: earrings, piercings, necklaces, presents, flowers, mobile, photo camera, lighter, tobacco, food, drinks, candies, medication, sewing material and any other object not referred as allowed-item. All non-allowed items will be given to the relatives on admission.

In addition to the norms that regulate patients’ behavior, there are protocols to guide HPs’ behavior, however, in the case of U2 as it was previously explained the main one is the “eating disorder protocol” for this study it is essential to refer to the PR protocol. Noteworthy, the PR protocol for U2 was at the time of data collection under revision but the at that time the valid document did not include any PR definition, stating only the PR objective “to achieve the limitation of movement of part or the whole body, with the purpose of controlling his/her physical activity or protecting him/her from harm that may cause to him/herself or others” (p.1). As it happened with U1, the Regional Office of Mental Health (Madrilenian Health Care System) document “Recommendations for actualization of Therapeutic Inmovilization protocols” (March,
also influenced PR’s terminology at the U2 as nursing team HPs started to call PR as “therapeutic immobilization”.

**Implications of the differential features between the settings.** Each unit has been briefly described in order to provide an understanding of how the settings’ characteristics have shaped the research process and the abstraction of findings because it is important to illustrate how different features affect differential functioning. This will not be done in a comprehensive manner, as it is not possible to exhaustively describe all contextual details that make a difference. However, some comparative examples in relation to the units’ physical, organizational, temporal and model of care characteristics will serve to illustrate this relation between traits and dynamics.

In terms of the units’ physical characteristics, examples of these are: transparent walls [U1] vs. opaque walls [U2] affect visibility, which determines what visual information is received and conveyed; entrance door at the central area of the unit [U1] vs. at one extreme of the corridor [U2] affects persons’ movements, accessibility to the entrance door and possibility to abscond; spaces for school and occupational therapy (or workshop) in the central area next to each other with mutual visibility [U1] vs. in different areas with no mutual visibility [U2] affect stimuli, potential for distraction and out of context interactions (i.e. patient at school communicates visually with patient at occupational therapy); numerous small tables [U1] vs. two big round tables in dinning room [U2] affects interaction dynamics and HPs’ visibility of patients’ movements; double rooms [U1] vs. single rooms [U2] affects patients’ interactions and functionality of rooms (i.e. single room reduces the need to use common spaces for activities such as visits); bedrooms doors cannot block way out [U1] vs. bedrooms doors that can block way out [U2] affect capacity to isolate patients in their bedrooms and need for an specific isolation room; no open terrace [U1] vs. open colonnade and garden [U2] affected the possibility
to have more space for free movement and leisure activities.

As far as organizational differences are concerned, examples of these are: unit divided into “females’ side” and “males’ side” but patients’ assignment to HPs in charge does not follow this distribution (also no correspondence between number of psychiatrists and nurses) [U1] vs. unit divided into “blues” and “whites” and patients’ assignment to HPs in charge follow this distribution (also correspondence between number of psychiatrists and nurses) [U2] affects distribution of responsibilities and communication channels; patients wear their own clothes [U1] vs. patients wear hospital’ pajamas [U2] affects patients’ manifestation of identity, registration of belonging and potentiality for absconding; doctors’ consultation in doctors’ offices [U1] vs. doctors’ consultation in patients’ rooms [U2] affect people’s movements across the unit, potentiality for encounters and initiative for approaching; auxiliary nurses make patients’ beds [U1] vs. patients make their own beds [U2] affect people’s distribution of rights and duties; doctors’ consultation with relatives in doctors’ offices inside the unit [U1] vs. doctors’ consultation with relatives in doctors’ offices outside the unit [U2] affect parents presence in the unit at other times than visits; parents leave after patients’ admission [U1] vs. parents admitted with the patient [U2] affects admission process, care responsibilities, persons’ interactions.

In relation to the temporal characteristics, examples of these are: different HPs simultaneously performing different activities (i.e. during occupational therapy and school also doctors’ consultation) [U1] vs. different HPs subsequently perform different activities (i.e. first doctors consultation and then, workshops and school) [U2] affect the order and pace of the unit environment; no mandatory rest time after each meal [U1] vs. mandatory rest time after each meal [U2] affects slowing down the pace of the unit; doctors’ consultations have no
predetermined exact time [U1] vs. doctors’ consultations have predetermined exact time [U2] affects patients’ uncertainty about when doctors will see them; meals do not have a predetermined amount of and patients leave the dinning room when they finish [U1] vs. meals have a predetermined amount of and patients leave the dinning room at the same time [U2] affects the order at the units as while in U1 patients might not be all together in the same place, in U2 patients are either together in a common space or in their rooms; the admission does not have a predetermined time for the patients with eating disorders [U1] vs. the admission does have a predetermined time for the patients with eating disorders with established stages [U2] affects the sense of predictability in the units, so that patients and HPs know what is going to happen.

In relation to the model of care, examples of this are: adult model [U1] vs. pediatric model [U2] affected the role and presence of parents in the process of care within the IPPU, consider patients more or less capable of making their own decisions and pose request, having children under 12 years old in U2 made patients adolescents and HPs to use a certain vocabulary, try to avoid violent events to protect these children from witnessing these scenes; “privileges system” [U1] vs. “0 privileges system” affects patients’ level of dependency of HPs and HPs capacity to negotiate with patients reinforcement methods.

**Target population, sampling and participants.** The study populations for this study were all HPs directly or indirectly involved in PR decisions. The initial estimation for the number and quality of potential participants was based on the information provided on the hospitals’ website regarding the health care team. Nevertheless, once the researcher accessed the units she realized that the quality and number of HPs that specifically worked at the units was slightly different from the information provided on the website as it referred to the psychiatric
department as a whole, not only to the IPPUs. Likewise, throughout the data collection process in the field there were frequent changes on the HPs that were working on the IPPUs, changes that the researcher could not track precisely in order to report an accurate number of the potential participants that could have been addressed. Main changes on the HPs working on the IPPUs were due to retirements, HPs (nurses and auxiliary nurses) mobility between different sections in the psychiatric department/hospital, HPs temporal contracts, HPs’ holidays during the summer period and medicine and nursing residents and students who were rotating at the unit. This frequent turnover of HPs on the wards made difficult to account precisely for the differences between those who were interviewed compared to those who were not interviewed as well as to ensure that all voices that represented the phenomenon were heard. Due to these particularities, in order to understand the recruitment process and the representativeness of the final sample it is important to first illustrate how the HPs’ team was organized in each IPPU.

**U1 HPs’ team.** At the U1 website it was stated that nine psychiatrists, one psychologist, twenty-two nurses, one occupational therapist, one teacher and one secretary formed the health care team. Once at the U1, what was observed was the following team organization: the head of the child psychiatric department (a male psychiatrist) was not physically working at the U1 as he was more involved in management and outpatient services (during the research period he was living in the USA for a year); instead, the head of the department had assigned a “responsible for the U1” (a female psychiatrist) who both worked as a psychiatrist at the U1 and had the “boss” role (she was also in charge of organizing beds and admissions). In addition, there were five other psychiatrists (2 males and 3 females [one of the female psychiatrist was pregnant during the data collection period and she left for pregnancy leave two months before the data collection period ended]), all worked at the U1 and were also involved in research projects and outpatient
programs (one male psychiatrist, the last one in being hired at the U1 was not involved in other programs and he had the role of being more time physically present at the U1). In close relation to the psychiatrists there were the medical residents, who were rotating at the U1 for four months. Each psychiatrist had assigned one medical resident per month; the medical resident played a more or less active role in patients’ treatment depending on the “psychiatrist style”. There was one psychologist (female) who did psychotherapy to patients at the U1 upon psychiatrists’ request; she was also involved in research projects and outpatient programs. As non-health professionals categories, but also part of the health care team there were two female teachers (one for science and one for humanities), one female occupational therapist and one female social worker who intervened with patients/families at the U1 upon psychiatrists’ request. In relation to the nursing team, nurses and auxiliary nurses compounded it. Importantly, the nursing team in turn was subdivided in “morning team”, “evening team” and “night team” as nurses and auxiliary nurses had fixed shifts. Nursing residents for the specialties of mental health nursing and pediatric nursing were only during the morning shift and spent around 2-3 months on U1; nursing students were present during the morning and evening shift and spent around one month on U1. Following the per-shift structure, there were one nurse manager for the “morning team”, other for the “evening team” and another for the “night team”. However, the nurse manager for the “morning team” was considered the nurse in charge of the U1 as a whole and the nurse manager for the “evening team” and “night team” were mainly in charge of managing the staff and to solve unexpected events during these shifts. The standard staffing in the “morning shift” is 3 nurses and 3 auxiliary nurses, in the “evening shift” and “night shift” is 2/3 nurses and 2/3 auxiliary nurses (five in total). Other non-health professionals that had presence in the ward are the “auxiliary of general services” (whose assigned role was to guard the door, take patients’
to medical test, carry material, etc. They were not supposed to interact nor touch the patients), cleaning staff (one female full-time during the “morning shift”, one part-time during the “evening shift”, and upon call during the “night shift”). Security guards were located outside U1; they were males that came to the U1 periodically at fixed times (the periodical visits of the security guards at U1 started after violent incidents at U1 to increase safety; another measure was to implement personal push bottoms to call in case of emergency but HPs referred that this system was not reliable) and upon emergency call.

In addition to describe, who compounded the healthcare team, it is also important to describe how it was formed, it means, how HPs relate to each other. The healthcare team was organized differently depending on the shift; in the morning, as there were 6 psychiatrists and three nurses, each psychiatrist had assigned one nurse, who in turned had assigned two psychiatrist (this assignment rotated every three months). Hence, there was a mismatch between the number of psychiatrists and nurses, but the intention was to form sub-teams (at the onset of U1 there were same number of psychiatrists as nurses per shift) in charge of the same patients (teachers, social worker, psychologist and auxiliary nurses did not participate in this patients’ distribution among HPs to form sub-teams). Unlike the morning shift, during the evening and night shift, there were no psychiatrist, psychologist, social worker, teachers and the occupational therapist was there only from 3:30 to 4:30pm. This meant that only nurses, auxiliary nurses and auxiliary of general services were present at U1 during evening and night shift. This aspect, together with the fact that U1’s space was not divided in different zones according to the type of patients generated a different distribution of patients among HPs. It means, instead of having assigned specific number of patients for whom each nurse was responsible, there was no specific assignment of patients to nurses so that “we all take care of all”. Likewise, there was not an
officially assigned nurse in charge during the evening and night shift; however, the most experienced nurse was informally the “natural leader” who took the responsibility in taking critical decisions. In relation to the verbal communication channels between HPs, it is important to describe the nursing team handover and the healthcare team meetings. The nursing team handover happened separately between nurses and auxiliary nurses; nurses were in one place (nurse station in the morning and evening shift and medication room in the night shift) and auxiliary nurses were in another place (nurse control in the morning and night shift and cleaning room in the evening shift). As there was not specific patients distribution among HPs, the handover format was that all nurses/auxiliary nurses talked in order and all nurses/auxiliary nurses present listened; hence, all nurses and auxiliary nurses were attending the handover at the same time, so fewer HPs were available for attending patients’ request or observing their behavior. In relation to the healthcare team meetings inside the U1, there was one “morning meeting”, one “weekly team meeting” and one “quarterly meeting”. In relation to the “morning meeting”, it took place everyday (except weekends) at 8:30am in which each nurse from the morning shift reported last evening and night shifts events to the rest of the healthcare team (psychiatrists, psychologist, teachers, social worker, residents and students -the occupational therapist could not attend these meetings-); the format of the report consisted in nurses reading what evening and night nurses had written about each patient in the kardex, which in turn were organized by psychiatrists (i.e. nurse X read kardex of psychiatrist X, nurse Y read kardex of psychiatrist Y, etc.). In this “morning meeting” there was also one auxiliary nurse present, while the other two auxiliary nurses and auxiliary of general services were waking patients up, supervising/helping out with their hygiene, weighting patients with eating disorders, taking them to test or external treatments, etc. As far as the “weekly team meeting” is concerned, it took place
once a week on Wednesday at 2pm in which psychiatrists explained new admissions to other HPs (psychiatrist, psychologist, nurse manager, morning shift nursing team [those HPs who were available or free from duties so that they could attend], teachers, social worker, residents and students), set questions about treatment or handling methods or other issues arisen at U1 during the week were discussed. The discussion and exchange of ideas was mainly between psychiatrists, while other HPs may also intervene to suggest or comment on a topic. Finally, the “quarterly meeting” happened once every three months to discuss U1 issues. All HPs working at U1 from all shifts should attend, while for HPs working at evening and night shifts it was more difficult to attend. I cannot describe the meeting format as I asked for permission to attend this meeting to the “psychiatrist responsible” and she accepted, however, once I entered the meeting room the nurse manager said I could not be present as only HPs that permanently worked at U1 were allowed to be present (this excluded students and medical and nursing residents). In other occasions, “spontaneous meetings” happened, like the conversations HPs had after the meetings or other unplanned encounters between HPs throughout the day. In addition to the formal and spontaneous meetings at U1, it is also important to mention how the HPs’ coffee breaks happened as they showed the informal relations between HPs. In this regard, psychiatrists had coffee at a cafeteria outside U1 at 9am, after the “morning meeting”, while the nursing team stayed at U1 taking care of patients’ breakfast, medication and vital signs. Not all psychiatrists participated in these coffee breaks as psychiatrists were usually busy with outpatients programs, management or research activities. Unlike psychiatrists, nursing team had their coffee break inside U1 at 10am at the nurses’ lounge during the time of the group therapy usually run by a psychiatrist, psychologist and twice a week by a nurse. Having the coffee break inside U1 meant that nursing team could never fully disconnect from their work, as there was a monitor at the
nurses’ lounge to keep observing and patients or other HPs could interrupt their coffee break with different requests or unexpected events.

**U2 HPs’ team.** At the U1 website it was stated that the health care team was formed by seven psychiatrists, five psychologists, twenty-three nurses, six porters/security guards, and one secretary. Once in the U2, it was observed the following team organization: the head of the child psychiatric department (a male psychiatrist) was not physically working at the U1, he was in the process of being retired and he was frequently under sick-leave. Another female psychiatrist was taking informally the lead but at the time of the data collection period there was a void in the position of the head of the psychiatric department as it was not sure who would substitute the current head once he retires. In addition to these psychiatrists, there were four other psychiatrists who worked at different sections of the psychiatric department and, strictly within U2 there were two psychiatrists (1 male [in charge of the “white side” or “acute patients”] and 1 female [in charge of the “blue side” or “eating disorders patients”]). There were medical residents but they were not constantly present at U2 and their main role was observing as they did not directly intervene with the patients. Likewise, there was one psychologist at the psychiatric department but he was not working at the U2. As non-health professionals categories who also worked at the U2, there were four female teachers (two for primary school and two for high school), one female social worker who intervened with patients and upon psychiatrists’ request. Significantly, there was no occupational therapist, instead, volunteers came to the unit to do “workshops” with the patients (these volunteers were not considered as part of the health care team, while they had training and instructions about how to intervene with patients at U2). In relation to the nursing team, nurses and auxiliary nurses compounded it, and it was not subdivided in sub-teams per shifts as nurses and auxiliary nurses rotated shifts (all could make morning, evening or night
shift); hence, there was one single nurse manager (female) who was in charge of organizing the complete psychiatric department circuit (U2 admissions, U2 discharge, day hospital). The standard staffing in the morning and evening shift was 2 nurses, 2 auxiliary nurses. Other non-health professionals that had presence in the ward are the guard (there was one per shift, they were always male whose assigned role was to provide physical presence, open/close doors, implement restraints, take patients to medical test, carry U2 material) and the cleaning staff. There were no external security guards who regularly visit U2 and I did not observe any occasion in which they were called in case of an emergency.

After describing the people who formed the healthcare team, it is also important to describe how the team was organized. The healthcare team organization was based on how the U2 space was distributed and on the working shifts. In the morning, one psychiatrist, one nurse and one auxiliary nurse were in charge of the “white side” or “acute side” and the other psychiatrist, other nurse and other auxiliary nurse were in charge of the “blue side”. Significantly, while the psychiatrist for each side was always the same, nurses and auxiliary nurses changed their “side” as they rotated. Likewise, as there was only one guard per shift, the guard was assigned the whole U2. In the evening shift, there were no psychiatrist but the nurse, auxiliary nurse and orderly distribution was the same. In the night there were one nurse, one auxiliary nurse and one orderly and the three of them were assigned the whole U2. In relation to the communication channels between HPs, the nursing team handover happened in pairs between nurses and between auxiliary nurses; it was a one-to-one handover organized according to the U2’s “sides”. In addition to the nursing team handover, every day at 8:30am there were meetings between the nurse and psychiatrist in charge of the same “side” (auxiliary nurses did not participate); these meetings were also one-to-one processes in which the nurse told the
psychiatrist the reported events from last evening and nights shifts (or weekends if meeting on Monday). Likewise, there were “team meeting” once a week on Mondays at 10am in a meeting room outside the U2. The format of these meetings consisted in that all psychiatrists of the psychiatric department talked about “their patients” to the other team members (psychiatrists, psychologist, social worker, nurse manager, teachers, residents and students; auxiliary nurses were absent and nurses came to the meeting only to report about the patients they had assigned) and psychiatrists discussed each case; nurses contributed reporting their interventions and observations about the patients and families. Finally, there were other non-periodic meetings launched by the nurse manager with the nursing team. Informal or unexpected meetings were not frequent within U2 as psychiatrists and other HPs not from the nursing team were only on the U2 for the morning report and the patients’ visit and at the end of the morning shift to return patients’ files with the treatment. Likewise, the space distribution and location of U2’s activities did not promote random encounters as spaces were not mutually visible and were at significant distance from each other. In addition to these meetings at U2, the HPs’ coffee breaks also reflected the informal communication channels between HPs. In this regard, nursing team and the guard had coffee after patients’ breakfast at the nurses’ lounge. This lounge was not visible from the outside, patients were having rest in their rooms and other HPs were outside the U2, so nurses were not frequently interrupted during their break. Other HPs’ such as psychiatrists had coffee at a cafeteria located inside the hospital but outside U2, however, I could find any pattern on other HPs’ coffee breaks.

**Implications of the differential features between the health care teams.** Once each health care team has been briefly described separately, in order to understand how the team characteristics has shaped the research process and the abstraction of findings, it is important to
illustrate how differential features imply differential functioning. Given that it is not possible to exhaustively describe all interpersonal details that made a difference, some comparative examples in relation to the IPPUs’ health care teams organization will serve to illustrate the relation between traits and dynamics.

In terms of the team organization, examples of these are: three sub-nursing teams “morning”, “evening” and “night” [U1] vs. one single team [U2] affected in HPs mutual knowledge and awareness of each shift’s particularities; “from all to all” handovers [U1] vs. “from one to one” handover [U2] affected quality of information transmission/reception and assignment of duties and responsibilities among HPs; auxiliary of general services figure who was not in charge of safety issues [U1] vs. guard in charge of safety issues [U2] affected need for external security staff, nurses and other HPs sense of safety in the IPPU, patients’ awareness of the constant “show force” in the IPPU; unequal number of psychiatrist and nurses during morning shift [U1] vs. equal number of psychiatrist and nurses during morning shift [U2] affected mutual availability and correspondence for interchange information.

**Sampling and recruitment.** Once the characteristics of the potential participants have been explained, next step is explaining the process of recruitment and the final sample of informants. In regard to the recruitment process, there were no specific exclusion criteria as it was considered that all HPs could provide information about PR decisions. They could be either directly or indirectly involved in PR decisions; “directly” means HPs that actually face those types of decisions and “indirectly” means HPs that may not face those decisions but influence them in any manner. In this regard, it was observed during the data collection period that any person who was present at the IPPU when a PR event happened could meet these criteria. This made expand the notion of HPs to any person hired by the hospital institution who has been
involved on a PR event. Hence, not only HPs that worked at the IPPU as it was initially stated, but any HP or other hospital staff who had been directly or indirectly involved in PR events could be included as participant in the study.

In order to get participants who best represented the complexity of PR decisions, the sampling strategy aimed for maximum variation according to two criteria: professional position or category and range of experiences about PR, either in quantity or quality. In relation to the professional categories they included: head of the psychiatry department, psychiatrists consultants, psychiatrists residents, psychologies, social workers, occupational therapists, teachers, nurse managers, nurses, nurse assistants, students, guards, auxiliary of general services, security guard and cleaning staff. As far as range of experiences is concerned, in relation to time of working on the ward it ranged from one month to fourteen years (since the IPPUs opened); the quality of the PR experiences explored ranged from “positive” or “good” experience to “traumatic” or “very unpleasant”. Although an initial tentative number of interviews was set from anywhere between twenty to thirty, the final number of interviews were forty-four, and twenty-five informal conversations. The need to increase the number of interviews was due to the wider range of experiences and professional positions that the researcher encountered in the field.

The recruitment of participants was done through two mechanisms. All HPs were invited to participate in an introductory session through an informative sheet that was posted on the IPPUs’ blackboard. Several introductory sessions took place in each IPPU to explain the study to the different shifts teams and professional categories. The researcher was available to solve questions that participants asked individually, either during the presentation sessions or upon personal request. After these sessions, participants accepted the researcher to start doing
participant observation in the IPPU. The process of recruitment of participants for interviewing started three months after participant observation started; this time was used to build rapport with participants and identify participants’ profiles to meet the maximum variation sampling criteria. The researcher approached the identified participants during the time she spent doing participant observation in the IPPUs asking participants in private whether they would be interested in being interviewed for the study. If the participant refused to be recorded but was willing to “talk”, to minimize non-response bias the researcher offered the possibility to do a non-recorded interview or an informal conversation. If the participant accepted, then, a time, date and place was agreed to perform the recorded interview.

Participants’ characteristics. Given the ethnographic nature of this study, it can be said that all persons present at the IPPUs with whom the researcher interacted were study’s participants. Nevertheless, due to lack of reliable data about those informants with whom the research had informal conversation but not a formal interview, only participants who were interviewed and filled a brief demographic questionnaire are included in this description. As it was done in previous sections, to illustrate the differences between the two IPPUs studied, the description will be done separately about U1 and U2. In regard to U1, the average age of participants was 43.76 years old, 30.7% were male and 69.2% were female, they had on average 17.8 years of experience on the health sector and 8.59 years in mental health, in relation to training and education 50% had specific education in pediatric mental health, 38.46% had training in handling patients behavior and 57% had training in implementing PR (15% had background in martial arts and personal defense and they considered this type of training as particularly useful), finally 100% of participants had been involved in PR events (15.38% considered they were involved but they did not decide about the PR). In regard to U2, the
average age of participants was 48.23 years old, 33.3% were male and 66.6% were female, they had on average 19.5 years of experience on the health sector and 11.29 years in mental health, in relation to training and education 23.8% had specific education in pediatric mental health, 19.04% had training in handling patients behavior and 19.04% had training in implementing PR, finally 100% of participants had been involved in PR events (19.04% considered they were involved but they did not decide about the PR).

**Protection of human subjects**

This research proposal was approved by the Institutional Review Board, ("Comité Ético de Investigación Clínica), of the General University of U1 and the Paediatric University of U2. A document for informed consent (Appendix D) was developed and participants were informed that they were able to quit their role in the research process at any time, and they were also encouraged to communicate with the researcher about any discomfort or uneasy feelings during the study. As detailed earlier, the researcher recruited the participants but they were informed that the researcher would not provide any information to any person about whether or not they agreed to participate in the study. Participants were not compensated economically for their contribution but a final report at the end of the study was offered in each of the IPPU.

Once the data collection started two IRB amendments were requested: one to request the modification of the research instruments and other to request an increased in the number of the study participants. Both amendments were approved.

**Data collection**

The methods for data collection were designed in accordance to the epistemological stance and the selected strategies for inquiry. Gilligan’s method called “The listening guide” (Brown et al., 1989) has been the basis to design the methods for this study. As a relational and
phenomenological method, the author incorporated throughout the process a reflection of her own thoughts and responses accounting for the moral conflict she felt while using PR as a mental health nurse and while witnessing PR events in the units. This way, the experiential background and knowledge of researcher and participant (Tolman, 2001) will be combined in a synergic relation that will foster the generation of mutual learning.

In particular, data collection included in-depth interviews, participant observation and examination of units’ documents.

**In-depth semi-structured interviews.** In-depth semi-structured interviews were done in order to explore HPs’ perspectives and experiences about PR decisions, to identify how HPs describe the PR decision-making process and the factors that might be involved in making such a decision. During the interviews, the researcher position was at “the place of not knowing (…) making oneself vulnerable to discover (…) replacing judgment with curiosity” (Kiegelmann, 2009), with a genuine respect for the participant, for what they knew and experienced, and for what they were contributing.

The interview process was developed as follows: The interviews were audiotaped and transcribed; they were aimed to be conducted in a quiet room, outside the unit where HPs work, but on site at the hospital in order to facilitate transportation to the interview. Nevertheless, due to HPs’ availability it was not possible to perform all interviews in the same room outside the unit. Due to this, some interviews took place at doctors’ offices or at the nurses’ room inside the unit. Every interview lasted between 32 and 183 minutes and the number of interviews with each participant depended on the meaningful information obtained as well as data saturation. The first interview commenced with a re-explanation of the research plan, the aim of the research and research questions. Then, the researcher checked that participants had read and understood the
information sheet, had signed the inform consent, and then gave the participant the opportunity to ask any question or concern they may have regarding the research plan. Once this was done, depending on the atmosphere perceived by the researcher at the beginning of the interview, the in-depth semi-structured interview began, either asking the participant about his/her professional trajectory, asking the participant to help the researcher answer the research questions or with a broad question asking the participants to describe a PR event that they had been directly involved in. From that starting point, the researcher guided the interview in order to obtain an “embodied” description of the lived experience of the phenomenon and the essence of such experience. Since the interview is semi-structured, the researcher relied on the participant to discuss the meaning of her/his experience and allowed the participant to raise the issues of importance for her/him. Despite the flexibility to adjust to the participants’ flow of discourse, the interviewer kept the interview protocol (see Appendix E) as a reference, focusing on the experience of moral conflict as a catalyst to help the participant achieve a comprehensive and deep exploration of the phenomenon. The interview protocol was developed with the aim of exploring HP’s opinions, perspectives and lived experiences of the PR decision-making process, beginning with a broad question asking the participant to describe a PR event and getting progressively into more detail. This interview protocol was pilot tested with three participants, and from this pilot test the interview protocol was modified to become more focused on the person and less focused on the theme. This way the interviews aimed to become more flexible, tailored to the participant, including questions about the daily activities at the unit and situations related to PR events in which the participant was involved. The interviews procedure is summarized in Appendix F.

In addition to this, coming from a relational stance to describe the interview process it is also important to explain the three main insights that interviewing participants brought: First, the
emotional reaction I use to have after interviewing took me off guard, and the way I felt made me realize that the reasons why I am doing this research are deeply rooted within me, and to some extent are still painful; this experience was a revival of the pain suffered for being unable to emotionally detach from the restrained patient and the lack of freedom I faced when implementing PR and so express my own way of caring. Second, the fact that participants at each IPPU came from the particular institutional culture of each IPPU became very significant as I realized that there were cultural differences to which I needed to adjust and further prove, such as the emphasis on safety or order, what was an adequate interaction and which researcher position would make the participant to feel more comfortable. Thirdly, there was another aspect that participants mentioned repeatedly that drew my attention: words as “probably”, “likelihood” suggested an experience of uncertainty in PR situations. Coming from these insights, I approached each interview and participant taking as a reference the self-awareness generated during the previous interview given the emotional challenge involved in interviewing about PR.

Participant observation. Participant observation allowed the researcher to share the participants’ own reality in their natural environment. This was very important for this study, as according to Gigerenzer (2002), intuitions that lead to moral actions (such as PR use) should be studied in the natural environment where they are produced as they can be influenced and shaped by environment and organizational factors. Hence, this method allowed exploring the systemic factors or working conditions that influence the psychological process that underlie PR decisions. Taking as a reference this study’s epistemological stance, the researcher was situated in relation to the participants and the environment, considering the fieldwork as a “work of learning from experience” (Kiegelmann, 2009). This position allowed the researcher to share the PR experience with participants and so build rapport with them as well as include her insights to
understand the phenomenon of interest from within. In this regard, the degree to which the researcher “participates” in addition to observing may vary from null, passive, moderate or active level of involvement (Ferrandiz, 2011). In some situations the observer may have opportunities to participate in the activities of those she or he is studying. Bogdan and Biklen (2007) refer to this range of possible roles from active participant to passive observer as the “participant/observer continuum.” Because of the IRB requirements, the ethical and legal implications in participating in IPPUs’ activities and PR events and the intention to minimally modify the IPPUs’ dynamics, the researcher was a full-time observer and tried not participate at all in the IPPUs’ activities. Participants did not always understand this “aseptic” researcher position and keeping a certain level of involvement generated a constant tension between the analytical distance and emotional commitment.

From this position and having the theoretical framework as a conceptual net to capture data, the observation was not about looking, but instead about searching; “training the eyes and the mind so that theories can help reveal the meaning of what has been seen” (Santos Guerra, 1999, p. 425). The observation process was an eclectic, reflexive, conscious and deliberate activity where the researcher herself was the main instrument for inquiry. The researcher observed in a systematic way having as references the observation guide and theoretical framework, but at the same time she had to adjust to the units’ dynamic circumstances, particularities, unexpected events and opportunities that emerged during the fieldwork. These changing conditions demanded from the researcher to be versatile and flexible at all times, and the different tensions that she encountered made crucial to keep the internal coherence and a reflexive attitude throughout the process. Importantly, this not only referred to the data collection, but to all stages of the research, including the study design, setting selection and
access to the field, participant observation, selection of participants, conversations and
interviews, until the moment of leaving the field and analyzing the findings and writing the
report (Ferrandiz, 2011).

In participant observation, field notes are the data (Merriam, 2009). To aid the note
taking procedure, the researcher used the observation guide (Appendix G); it served as a
reference to orientate the selective attention and the systematic data collection through field
notes. This observation guide (Appendix F) included two main sections: one to describe the PR
intervention itself, and another to describe the factors that might be influencing that PR
intervention. The initial guide for PR interventions was designed following the same items
necessary to describe any clinical intervention (Santillán, 2013) and the guide for factors was
based on the factors included in the theoretical framework. Despite the guide did not include
checklists or boxes in order to allow flexibility in the data collection, it had to be modified as it
did not respond to the more complex and faster reality the researcher encountered once into the
field. The modified observation guide version was submitted to IRB for approval, and it included
five main sections: daily activities, interpersonal interactions, physical restraints decisions,
susceptible situations for seclusion/restraints interventions and subjective notes (Appendix H).
Nevertheless, because of the IPPUs’ dynamics there were many people in multiple spaces and
times, so it was not possible to observe all of the activities, interactions and PR events that
occurred. To account for this limitation the researcher focused on one HP’s daily life per each
field visit, for example, one day the researcher was with an auxiliary nurse, other day she was
with a psychiatrist, and so on.

In addition to the field notes, the researcher kept a field diary where she wrote personal
and reflective information; it was the subjective and experiential part of the observation
procedure. The content of the field diary was “on speculations, feelings, problems, ideas, hunches, impressions, and prejudices” (Bogdan & Biklen, 2007) relative to how HPs’ decided about using PR. This allowed the researcher to keep track of her insights and experience, and so include her standpoint to ultimately inform the analysis of the data.

The frequency of field visits and distribution of time the researcher spent on each IPPUs varied depending on researcher and participants’ availability and IPPUs routines. The field visits ranged from 24 hours shifts, to separate morning, afternoon or night shifts, altering between the two IPPUs. Visits were planned based on what had been already observed and what needed to be observed, aiming to “sample” a maximum variation of processes, moments and spaces. The participant observation procedure is summarized in Appendix I.

**Documents.** To supplement the in-depth interviews and participant observation, the researcher reviewed IPPUs’ official documents. These documents included internal communications that circulated within the IPPUs’. Some of these documents allowed only limited access to IPPUs’ staff (i.e. patients’ files, units’ protocols, incidents notebook, assembly notebook, blackboard). Other official documents were external communications produced by the IPPUs for patients’ relatives or public consumption (i.e. informative sheet, norms and regulations flyer, IPPUs website) (Bogdan & Biklen, 2007; Merriam, 2009).

**Researcher’s role.** Focusing on the fieldwork period, it developed through a process that can be divided in three phases: orientation, re-think and achievement. Firstly, the orientation phase took place from March to July 2014 and consisted in accessing to the field, adjusting to the field and piloting the instruments. To gain access to the field to research PR in these IPPUs was a delicate process that happened through a top-down procedure; it means, the gatekeeper was the
head of the pediatric psychiatric department, who then put the researcher in contact with the nurse managers in charge of the IPPUs. Getting access from the “bosses” had important implications in how the participants perceived the researcher, as some verbalized or asked the researcher whether she was controlling or supervising them. In addition to the effect and interpretations that the researcher’s presence generated, she had also to adjust to each IPPU particular functioning and institutional culture, where inter-subjective relations became complex and not always under control. This complexity together with participants’ perception that the researcher was might be controlling them while using PR put her into a situational shyness being prone to feelings of self-consciousness, incompetence and impostordom (Scott, Hinton-Smith, Härmä & Broome, 2012). The researcher tried to overcome the load of her presence taking a respectful and neutral attitude, trying to show herself as an “opinionless learner”. Significantly, the researcher’s presence generated different reactions and interpretations in each IPPUs, patients, relatives, HPs and other hospital staff. To illustrate how these reactions and interpretations happened differently in both units it may serve to mention that at the Gregorio Marañón Hospital the researcher was given a white coat, while at the Niño Jesús Hospital she was given a nurse uniform to wear. Considering the researcher’s appearance, it was particularly difficult to relate with patients in a way that they did not consider the researcher part of the staff, at the same time that patients could understand that she was “not researching them” and she could not interact with them more than in a respectful way nor interfere in any of their issues. During this initial time, not only the researcher but also the research instruments needed to adjust to the reality in the field. Due to this, after spending 3 months getting used to the field and piloting the instruments, the researcher took some time to re-think the research plan, give participants a break from her presence and modify the research instruments. After this time, the
researcher and research instruments were adjusted to the field so the achievement phase commenced. Participants verbalized that the researcher had become almost “invisible” and the initial precaution to her presence transformed into rapport and trust. Likewise, field notes became more effective and precise and most interviews took place during this time.

**Data management**

The data collection process provided an important quantity of data in the forms of field notes, interviews transcriptions and IPPUs documents. In order to transform “raw data” into “workable” material, the data management process was divided into four steps: data recording, taking stock of data, data identification, and data processing.

First, interviews and participant observation required two different methods of data recording. In-depth interviews were audio taped and transcribed verbatim by the researcher. The field notes from the participant observation were recorded on paper during the fieldwork, and everyday after the fieldwork the researcher transcribed the field notes into electronic format in Word 2010 documents.

Second, taking stock of the data started with data collection. Therefore, the immediate containers for the data right after it is collected were: the researcher’s memory, the field notes and the tape-recorder. In regard to the information collected in the researcher’s memory, this was one of the main difficulties to record data as PR events contained traumatic features that the researcher could not recall at the time of writing the field notes. Nevertheless, everyday after the fieldwork was finished the researcher typed down whatever happened that she could recall and was not recorded and she added this to her field notes. Likewise, the field notes were transformed into systematic notes everyday, organizing the data following the observation guide.
structure. Interviews were kept in audio files and were transcribed by the researcher who kept an electronic copy of each interview in two distinct password-protected computer files.

Third, to ease the process of identifying data, a systematic and consistent file naming system was developed. All documents had their file name as a footer and the file name included: participant ID number, data collection method type, site of data collection, interviewer, and date of data collection.

Finally, in terms of data processing, it is important to note that the data were collected and processed in Spanish. Translation to English happened at the last step of data analysis, when preparing findings for reporting. In this case, the main themes/findings were presented both in English and Spanish. In addition, a Spanish native speaker/English language philologist was consulted and checked the translations to ensure accuracy. Data processing consisted mainly in the following strategies, keeping the tentative theoretical framework referenced throughout the process to organize data:

a) File classification: after finishing data collection the researcher organized the fieldnotes and the interview transcriptions in separate sections so that they were prepared for analysis. In relation to fieldnotes, they were organized in the following folders: casual conversations (it includes all "informal conversations" the researcher had with the informants during her time on the IPPUs. This served to compare this information with that obtained during the interviews), contextual observations (it includes information the researcher recorded based on what she saw and heard, and it mainly relates to contextual factors such as noise, setting layout, etc.), personal interactions (it includes observed moments in which informants were interacting with each other, either physically or verbally. When the researcher was part of the scene she
am also described her role there as well as her perception of how informants were perceiving her presence). PR interventions (it includes three types of situations, organize this in three sub-folders: Non PR interventions [this includes liminal situations that the researcher could not classified as PR interventions per se but have certain connections with the study's PR concept, i.e. a HPs suggest a patient needs PR but this actually doesn't happen, a patient goes to the isolation room, a patient takes medication involuntarily], susceptible PR situations [this includes observations in which a potential PR precipitant happens but PR eventually does not occur as the "tension" has been "diluted" somehow. i.e. a patient hits a door], PR interventions [situations in which a patient is physically restrained according to this study's PR definition. When enough data is available, PR event description is divided in Prior PR, During PR, After PR], staffing (includes records of number of HPs/Staff members present during that shift. If other actors present this is also included), Information transmission (this includes within informants mechanism to transmit information to each other, data relative to information flow. i.e. handover, meetings, etc.), Unit activities (this includes what actions are taking place in the unit and who is performing those actions. These are divided in planned-routine- and unplanned activities-spontaneous), Unit documents (this includes notes that the researcher took reading HP's written records in the patient file), subjective notes (this includes the researcher’s notes and personal perceptions (field diary) and feelings about what has been observed). As far as interview transcriptions are concerned they were organized in the following folders: cognitive tasks used to make the PR decision, factors that influenced the decision making process and participants’ perception about the usefulness of the PR protocol.
b) Matrices to summarize data: There were three initial matrices, one per each research question. Each of them contained: data, codes and memos. Data refers to raw data obtained either through field notes or interview transcriptions; Codes refer to descriptors used to put raw data into initial categories; Memos corresponded to the researcher’s thinking and suggestions.

c) Flow charts or maps: As soon as the relationships between data were detected, the process began initially with simple lines between cases and/or sources of data, and as long as the research process continued, the complexity increased until the final theoretical model was formed.

Data analysis

The data analysis was done through a simultaneous process of reflecting and abstracting the narrative content of field notes and interview transcriptions. This process happened combining inductive and deductive analytical movements, being the researcher situated in relation to participants’ voices and the context to explore. The directionality of the analysis was horizontal, aiming to capture maximum range of themes and categories, and vertical, aiming to dig into deeper theoretical and conceptual level of abstractions as well as into deeper level of participants’ experiences. Particularly, the coding of the data aimed the horizontal analysis and the “listening guide” or voice-centered relational method aided the vertical process. The rationale for this was based in the complementariness of both methods, which allowed for the accounting of the limitations of using each method separately. On the one hand, the coding process would put at risk the epistemological foundations of this study, as the coding and categorization would “disembody” the discourse from the participant; on the other hand, using only the “listening guide” method would not allow enough reduction of data, would be too time consuming and its
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rigor would not be ensured as this method does not aim for data saturation. Thus, this combined
process facilitated the management of all the sources of the qualitative data collected, in a way
that the coding and categorizing process did not detach the researcher from the listening process
of the participant’s experience. In short, the coding explored the “breath of data” and it allowed
finding what participants said, while the listening method will explore the “depth of data” getting
into the how they said it (Frost, 2008). Even though the process was iterative, for explanatory
purposes the data analysis plan can be divided in three parts. First, coding helped to build the
framework to explore the data rigorously, ensuring that all categories and themes were present
and that data collection had achieved data saturation. Second, through the “listening guide
method” the researcher got into a deeper level of analysis that allows revealing the underlying
psychological dilemma of PR decisions. Third, results obtained from both methods were
combined so that they could inform each other to build a unified set of results.

In this regard, given that the “listening guide method” also involves in and of itself a
series of steps, it would be useful to make the Listening Guide method explicit in order to
understand the entire process of data analysis: The Listening Guide method is characterized by a
multilayered conceptualization of the psyche. Hence, it is inferred that the psyche, as well as the
voice, is contrapuntal (not monotone) so simultaneous voices overlap. These voices evoking the
psyche might be in tension between themselves, with the self, with other people’s voices, and
with the culture and context within which the person lives. Due to this, this method involves
multiple readings (“listening’s”) of the same narrative from different angles and perspectives,
including the reflexivity throughout the process (Brown et al. 1989; Gilligan, Brown & Rogers,
1990). The analysis will then be developed as an interpretative work that will follow a process of
simultaneous abstraction and reflection upon the data that consists in four separate yet
interconnected steps, or “listening”. According to this, the narrative analysis of the data collected were analyzed as follows:

- First “listening”: the story or plot of the argument. This reading aims to describe what stories related to the PR decision-making process are told. The way the story is told within the relational context in which the discourse is developed, its structure and the author’s reaction to this discourse will be also included. Given that the PR protocols are supposed to be the tool that guide PR decisions, this standard will be taken as a reference to explore HP’s decision making process, contrasting the elements included in HP’s narrative with the elements included in the protocol.

- Second “listening”: cultural narrative. This reading refers to the specific cultural, political and socioeconomic context where the participant is situated, so elements such as beliefs, ideology, organizational values, habits, routines in the unit related to PR use are of importance. This is relevant in order to identify the beliefs that are the bases of HP’s actual actions in relation to PR use, using the protocol as a reference to evaluate these beliefs. Likewise, in order to include the influence that environmental and contextual factors may have on PR decisions, organizational and environmental elements will be also included in this reading.

- Third “listening”: the way the HP talks about him/herself (“I poems”) (Gilligan et al., 2003) and depicts him/herself in relation to the use of PR. This reading respects the order of the discourse allowing us to glimpse the participant’s free associations and stream of thought, to identify what particular ideas and images are evoked in certain moments. This made possible to identify the moves HPs make in terms of their self-representation, in order to glimpse who makes the decision in what moments.
Fourth “listening”: contrapuntal voices. This final reading identified, name and describe the voices present in the discourse. Once this is done, the relation between voices will be explored so that the dynamic mechanism between the different streams of thoughts within HP in relation to PR use will be revealed. Exploring the interactive dynamic between the voices will help reveal movements (i.e. overlapping, tensions, self-contradictions, incongruences, etc) that may help understand why some thoughts are evoked and not others, which in turn relate to the decisions that HPs make in relation to the use of PR. In addition to this, it may also help to detect self-contradictions and incongruences that may indicate inconsistencies in terms of the PR decision-making process in relation to the protocol.

In addition to the coding and the listening guide method, the analysis of the data in relation to the research question 3 “How could current PR protocols be improved to better guide HPs’ PR decisions?” was done through a process of comparison between the data collected during observed PR events and the statements included in the WHO’s recommendations on seclusion and restraints (WHO, 2005) to assess whether these recommendations fit reality and vice versa.

Assessment

Rigor of the study. Strategies to achieve rigor in this qualitative research were essential given that qualitative research has been traditionally criticized for being biased, small scale and not generalizable (Anderson, 2010). The plan to improve the quality of this research were done by following Morse et al.’s (2002) recommendations to design strategies for two moments in the research: during the study and after the study, with the premise that “strategies to ensure rigor must be built into the qualitative research process per se” (p. 17). As qualitative research is an
iterative process, these strategies during and after the study helped the researcher correct the development of the research process as necessary and also to evaluate the findings once the research process was finished. Using Morse et al.’s (2002) denominations, strategies during the study were “verification procedures” and strategies after the study were “trustworthiness procedures”, explained by the following:

Verification in qualitative research refers to those mechanisms implemented during the research process in order to improve the rigor of the study. As qualitative research is an iterative process, through the back and forth movements of data collection and analysis, the verification strategies ensured that the entire process was self-correcting (Morse et al., 2002). There were six concrete strategies: First, investigator responsiveness refers to the fact that the researcher remained creative and open, and she was willing to relinquish unsupported ideas. Likewise, the researcher reflected on her own bias from a prefigured reflection of her moral stance in regard to PR use (Appendix B). Second, methodological coherence was achieved through the research plan (Appendix C) that aimed to link the different parts of the study. Third, appropriate samples were considered trying to select participants that represented the phenomenon; it means that through maximum variation sampling and increasing the number of participants from the initial tentative number of participants all discourses relevant to understand PR decisions were present. Fourth, collecting and analyzing data concurrently allowed the back and forth movement between data collection and analysis to ensure that the information collected was meaningful and that the participants selected represented the phenomenon. Fifth, the whole process was be done with the aim of thinking theoretically so that the emerging ideas were confronted with the data and the different sources of data were triangulated and confronted as well. Finally, the researcher moved theoretically from the micro perspective of the data to the macro perspective of theory,
using the tentative framework as a template for comparison in order to facilitate theory development.

Trustworthiness strategies refer to the mechanisms used after the study to evaluate the rigor of findings; the selected strategies were based in Guba and Lincoln’s (1981) strategies to establish trustworthiness. In particular, two criteria were used: credibility and transferability. First, strategies to ensure that the findings are credible consisted in checking for bias, explicitly the methods of data collection, extensive and comprehensive observations, triangulation of data and methods, testing the findings with the informants and other external sources, and comparing and contrasting data. Second, in order to evaluate transferability (or the extent to which the findings can be applied to a different context) the researcher did a rich and thick description of the research process and she controlled and make clear why the participants were representative of the phenomenon.

**Strengths and limitations.** The main difficulty of this study has been tackling the complexity of the components and factors that affect HPs decision-making process about PR use, being only one researcher who collected and analyzed the data. Nevertheless, it was precisely the dynamic and comprehensive capacity of qualitative methodology that allowed the research to account for this phenomenon. In addition, this methodology allowed exploring the PR decisions within its context including the meaning that HPs give to the phenomenon from their own reality.

Another challenge to overcome was the observational nature of the study combined with the fact that PR use is a sensitive topic. Hence, the presence of the researcher in the IPPU during participant observation and with the participants during the interviews could alter the data collected due to a deference effect. In order to control for this bias, the researcher had a neutral and respectful attitude and tried to incorporate to the routines building rapport and trust with
participants, observing the group from within, being “one of them” in their natural environment. Moreover, given that the researcher was at the same time the observational and listening research instrument, the researcher was explicit and conscious about her own background, her starting foundations and her perspective about PR use. Thus, the aforementioned strategies for ensuring and evaluating rigor allowed control for deference bias as well as for the researcher’s bias.

Finally, this research plan was innovative in its epistemological approach and in the plan to combine different theories and data in order to develop a comprehensive theoretical model that explains HPs decision-making processes about PR. In this regard, given that this methodology has not been tested on a similar topic, the validity of the study might be jeopardized. Nevertheless, this innovative approach has generated important findings in this field and initiates a new direction for further research.
CHAPTER IV: RESULTS

Descriptive results related to research question A: Contextual Matrix

The analysis of data obtained from the participant observation has permitted to identify the "contextual matrix" that underlies the notion of IPPU where PRs occur. The selection of the terms "matrix" and "contextual" has not been arbitrary, but the term "matrix" is referred to the environment and/or material in which the PR occur and "contextual" represents the circumstances that form the setting for a situation (PR use) and without which PR can not be understood properly. Thus, analyzing the "contextual matrix" will permit to describe and understand the working factors or conditions (environment, materials and circumstances) in which healthcare professionals (HP) take decisions regarding the PR use.

In order to understand the environment and circumstances surrounding the PR use in depth, the description of the contextual matrix will be done by organizing the issues for discussion according to their degree of conceptual abstraction establishing a hierarchy of significance. This hierarchy of meaning has been constructed by identifying and analyzing the analytical categories at three levels of abstraction: conceptual, typological and concrete level. The conceptual level will identify and define the categories of analysis of higher level of abstraction (hereinafter subjects), which then will be used as theoretical foundations of descriptive model about decisions regarding the PR use. The typological level will facilitate the identification of different kinds of entities that are within each subject. The classification process was made by grouping the various entities within common analytical categories according to degrees of similarity among the essential characteristics of such entities. Finally, the concrete level will try to apply the abstracted concepts into subjects and categories to the concrete reality of the mental health unit observed through the illustrating of paradigmatic cases.
As a starting point, the descriptive process should start defining the term of "contextual matrix" in which the PR occur as a philosophical, temporal and spatial structure composed of variable elements that establish among them relationships of mutual regulation. In order to give tangible content, and therefore meaning, this abstract concept, from the concrete meaning of each of the terms included in the definition, will ultimately permit to describe the complexity of the specific conditions in which the PR take place. For this, we will follow the plan of levels of analysis previously mentioned, first specifying the meaning of each of the key terms included into the definition, corresponding to one subject. Later, in those cases where that term consists of sub-categories or types of analysis, we will be ultimately named and defined such categories illustrating their meaning with paradigmatic examples observed in the IPPU.

Having explained the process to follow, contextual matrix in which the PR take place, is described bringing meaning to the following terms (subjects):

**Structure**

Arrangement and order of variable elements that constitute the contextual matrix. For example, the walls structure the space: the distribution of space in IPPUs is not arbitrary, but it is delimited by the establishment of separations among the different areas following a logic determined by the purpose for which each space is created. In the same way, the rules of internal procedure of the IPPU designate the sequence of activities that a person should do in a fixed time and space. This organization of space and time is the basis of the structure that supports the contextual matrix.

**Philosophical dimension.** Intrinsic aspect to humans that represents the natural attitude of people to the existence of the contextual matrix in which humans find their own being and appearance. This dimension is subdivided into the following philosophical categories:
Metaphysics. It refers to the conception of the constitutional reality of the structure (contextual matrix) itself. Examples: 1) What the IPPU is: "This is not a summer camp", 2) how mental illness is understood, "the patients and behaviourists," "the eating disorders and severe illnesses".

Gnoseology. It refers to the nature and limits of human knowledge, in particular, how the HPs know the reality (contextual matrix) in which they are and what limits they have to know patients and other HPs. Examples: 1) An HP believes that knowing a patient consists in predicting how he/she will act in order to anticipate to his/her performance, while another HP believes that knowing a patient is to be informed about patient's tastes, habits, problems, their virtues to adapt to him/her, 2) An HP has information about a patient at a time, place and certain conditions, not about the entire patient's life, and only for those observable aspects of their life.

Logic. It refers to the process in which, starting from an evidence or premises, a conclusion can be confirmed, that is, the principles of valid inference. Examples: 1) An HP observes that a patient laughs and concludes that he/she is not depressed, 2) A patient tells an HP he/she wants to kill himself/herself and the HP concludes that there is a high risk of suicide.

Ethics. It refers to the moral value of behavior, the duties to be fulfilled and the rules that guide behavior. Examples: 1) patients' aggressive behavior is considered wrong, 2) when a nurse gives the patient the treatment prescribed by the psychiatrist is considered a duty, 3) The IPPU have internal operating rules such as the hour of getting up.

Policy. It refers to the relationship between individuals and society, including government institutions such as the Government, laws, rights and power. Examples: 1) The heads of the IPPUs, the nursing supervisors, 2) the legal framework governing the operation of the IPPUs as health regulation or child act, 3) the rights and duties of patients and HPs, 4) the
psychiatrists that guide medical orders or the possession of the keys to the IPPUs as element of power to regulate the access to that space, 5) The judges that review adequacy of patients’ admissions but not PR events.

**Language.** It refers to the study of meaning and the relationship between language, users and the contextual matrix. Examples: 1) The terms used by HP to describe patients' behavior as "appropriate", "inappropriate", "educated", "right", etc. can have different meaning depending on the HP, 2) the tone of voice, expressions and words used by the HP to speak with patients.

**Temporal dimension.** Aspect that represents the succession of states through which pass the variable elements that constitute the contextual matrix. This dimension is subdivided into the following temporal categories:

**Periods.** Time duration of a state (of an element) having its beginning in the past and its ending in the future, considering that development from the present moment. Examples: 1) The duration of a work shift is a period, 2) A "crisis period" can be defined as the interval of time that starts when a patient begins to show signs and symptoms of psychomotor agitation and finishes when these signs and symptoms are no longer present.

**Cycles.** Sequence of periods through which an element repeatedly passes in a certain order. Examples: 1) The shifts of nurses are cyclical because each shift lasts from the beginning of their work day and then follows repeatedly an order determined by the hours of entry and exit, 2) The "crisis" suffered by a patient can be repeated, in that case the order or repeating pattern may be less clear.

**Moments.** Precise point in time at which an element changes its state or does an activity. Examples: 1) The hour of entry of the nursing staff to begin their shift, 2) The time when a patient knocks a door as an indicator of the beginning of a crisis period.
Spatial dimension. Physical environment in which the variable elements that constitute the contextual matrix are located. This dimension is subdivided into the following spatial categories:

Location. Situation or portion of the confined space in which a variable element is placed. Examples: 1) Medication (drugs) is located in a specific room for that purpose, if there were drugs located out of this room, this would be considered a fault, 2) Medical consultations take place in medical offices, in patients' or in groups' rooms.

Position. The way in which the variable element is situated in relation to others variable elements located in the same space. Examples: 1) A chair is positioned with all its four legs on the floor, but if the chair is positioned with its back instead with the legs on the floor, this is considered an anomaly, 2) The relative distance between two people located in the same space can vary in terms of closeness or distance, having as reference point the consensus of social distance.

Displacement. Movements exerted by the action of a force allowing the change of location or position of a variable element. Examples: 1) The action of throwing a chair consists of exerting a force that makes a chair that is supported on all its four legs on the floor fall and rest on the floor on its back, 2) A nurse inside an office, goes out to the space where the patient is doing occupational therapy to call him to go where the doctor will visit the patient. When the nurse calls the patient he/she leaves the place in order to go with the nurse to the office where the doctor is located.

Variable elements

Natural components equipped with internal structure that constitutes the material basis for the contextual matrix and whose nature is changing, that is, capable (susceptible) of varying. Given
the special feature and importance of the variable condition of these elements, the analysis at conceptual, typological and concrete level will be completed describing the susceptibility of the variation of such elements. According to the natural characteristics of these elements, they can be classified into the following categories:

**Inert elements.** These elements are non-living natural compounds that lack capacity to vary autonomously. According to their role they can be classified into the following categories of analysis:

**Architectural elements.** Building materials that in order constitute the physical structure of the IPPU. Examples: 1) walls, 2) the floor, 3) glasses, 4) doors. The susceptibility of variation mainly arises from the possibility of rupture or change of the form by the action of an external force altering its ability to function.

**Environmental elements.** Physical entities which together make up the environment around the living IPPU elements. These elements are light, temperature, air and sound. Examples: 1) temperature of the IPPU [if it is hot or cold] 2) level of natural and artificial light [lights off indicate the patients' bedtime], 3) sound or noise level [when the food trolley passes the noise level increases], 4) atmospheric air or gas concentration [odors, subjective feeling of breathing air]. Susceptibility of variation arises from the quantitative gradation or levels at which each item can be found.

**Instrumental elements.** It refers to those manufactured items that can be used for a specific purpose. Examples: 1) linens [a sheet can be used to cover her/his on the bed or to hang oneself], 2) Kitchenware [a knife can be used to cut a steak or to cut oneself], 3) Drugs [drugs can be used to improve the state of a disease or can generate an allergy or overdose], 4) Cameras [can be used to record a scene or to monitor what happens].

In
addition to the possibility of rupture and change of shape, their susceptibility of variation also depends on the kind of object that is itself and the use the person gives to such object.

**Live elements.** These elements are live natural compounds, equipped with life and movement, that is, capable to vary autonomously (since in the IPPU the live elements exclusively relate to individuals, from now live elements will be called "persons"). As persons themselves or in conjunction with others, they can be:

**Individual entities.** It refers to the person considered independently of the others, defined as singular and unique, who has typical characteristics that give him/her an identity (see graphic in Appendix J). These typical characteristics can be grouped into the following categories of analysis:

**Intrinsic features or attributes.** Non-transferrable qualities of a person that constitute an essential part of his/her nature. Among persons in the unit they have been identified the following attributes:

- **Body:** materials parts which form a person and allows him/her to move and speak. Examples: 1) Body parts (arms, legs, mouth, etc.), 2) Weight, 2) Height 3) Sex. It is likely to variation in all parameters belonging to the physical reality. For instance: A girl weighing 70 kg and 1.65m tall has different physical reality than a child weighing 40 kg and 1.07m tall.

- **Psyche:** conscious and unconscious processes of a person's mind. Examples: 1) Thoughts, 2) emotions, 3) feelings. It is likely to variation in all parameters belonging to the psychic reality. For example, a man who thinks he has made a mistake feels something different from a man who thinks he has acted correctly.
- **Life experiences**: it refers to the set of facts witnessed, felt, acted or known throughout the life of a person who constitutes his/her personal and unique identity. Examples: 1) Having been abused in childhood, 2) Being born into a conservative family, 3) Previous job positions or "working life". It is likely to variation in all-possible experiences through which a person passes during his/her life.

- **Social skills**: complex ability to behave that optimizes interpersonal influence and resistance to undesirable social influence, while at the same time optimizes the benefits and minimize losses in relation to other people and keeps one's integrity (Linehan, 1984). Example: 1) A situation where the patients are teenagers, it is bedtime and they leave their room and refuse to go to bed. Three HP interact with these patients telling them they have to go back to bed. Adolescent patients ignore these indications and continue out of their rooms. After some minutes, another HP comes and she/he speaks firmly, with conviction and sense of humor. Then, the adolescent patients without saying a word come back to their room. The HP's colleagues tell her/him: "Oh you see, you have a natural talent to talk to them". It is likely to change in many areas and very difficult to evaluate because it depends on the type of behavior, utterance and thoughts a person has in relation to a particular social situation.

*Extrinsic characteristics or capitals*: convertible and transferable set of possessions of a person. In persons of the IPPU has been identified the following types of capitals:

- **Spatial capital**: quantity and quality of public and private places to which a person has legitimate access and constitute the spatial reality of that person. Examples: 1) Patients have a certain room designated, they are not allowed to access to other
rooms or units assigned to medical personnel, 2) Psychiatrists work in spaces not only inside the unit, but they also visit and meet outside the unit, 3) Nurses exclusively work in areas inside the unit. This is likely to variation in all possible spaces of the IPPU, referring to the possibility of being in or out of each of these spaces.

- **Cognitive capital**: useful information and knowledge for the person to know the reality in which the person is immersed in. Examples: 1) Receiving information about the patient's psychiatric diagnosis and knowing what it means in terms of its treatment and prognosis, 2) Seeing a person sitting in the middle of the hallway and evaluating possible causes that have led that person to that situation, 3) Being informed about the decision of the psychiatrist whether a patient has the permission to go out or not. It is likely to variation in all possible types of information a person can receive in this moment or in the past related to the known reality as well as the level of training (formal or informal) in different fields of theoretical and practical knowledge.

- **Usable capital**: instruments belonging to a person (goods) that can be used in a certain way or particular purpose at his/her discretion. It refers to things that a person has and to what he/she can do with them. Example: 1) Drugs, psychiatrist prescribes them, the nurse takes and gives them to the patient according to the physician's order and then the patient takes them (or refuses its ingestion), 2) Scissors can be used to cut paper, cut a bandage or cut oneself. It is likely to variation in relation to the type of instrument that the object in question is, and the use that the person gives to it.
Social capital: quantity and quality of the networks of relationships to which a person has access enabling cooperation between both sides. Examples: 1) An HP who exclusively works during the night shift can establish relationships with colleagues and with patients hospitalized, but is not able to meet patients' parents or colleagues that work in morning shifts (nurses, nurse's aides and hospital attendants, psychiatrists, psychologists, occupational therapists, teachers and supervisor) and in the evening shifts (nurses, nurse's aides and hospital attendants). It is likely to variation in relation to the quantity and quality of social networks to which the mentioned person has access to in the IPPU, the level of mutual trust between the persons who form this network and the effective rules governing such networks.

Temporal capital: it refers to the relation between the amount of free time (time that can be used by the person at his/her discretion) and busy time (time that can not be used by the person at his/her discretion because of the development of required or essential tasks). Examples: 1) A nurse with morning shift spends time on the following compulsory essential tasks: receives information from colleagues of the previous turn and gives this information to the other members of the team in a meeting, takes the medication and gives it to the patients, takes vital signs, observes patients, records constants and what it has been observed, calls the families to inform them, gives information to the rest of the team members, accompanies other team members in their activities, gives information to the rest of the team members. This fact makes that the amount of free time a nurse has for herself/himself is minimal in relation to the time spent in mandatory tasks assigned by and/or for others, 2) Patients wake up with the notice of a nursing assistant, and from that notice the rules
of procedure of the unit state that "all activities and timetables scheduled must be complied with". It is likely to variation because it depends on the duration and number of each compulsory or essential activity.

**Collective entities.** It refers to the notion of persons considering them in interdependence with the rest, that is, as belonging to a group which is inserted in a broader social environment that we name society. Thus, the group represents the intermediate step of the person between belonging to himself/herself and belonging to a society. Given the relevance of this condition to theoretically articulate the notion of the individual and the notion of society, the concept of group will be the core subject of the analysis of collective entities. Starting with the conceptual level, a group is defined by internal composition criteria that give to their individual members a collective identity. Following in the typological level, in the IPPUs studied, the internal composition criteria that distinguishes one group in relation to another is the particular role that each group has, understanding by a function the particular activities that the members of the mentioned group with a specific purpose have. In our case, being the society the IPPUs (U1 & U2), it has as aim (not "purpose") the "study and stabilization of those psychiatric disorders requiring hospitalization at full time". According to this aim, persons belonging to the society IPPU can have as function a) being the aim of the IPPU (psychiatric conditions requiring hospitalization) or b) doing activities aimed to achieve the aim of the IPPU (study and stabilization of psychiatric disorders requiring hospitalization). Thus, people who are in the IPPU are divided into groups that are defined and classified as follows (see graphic in Appendix K):

**Patient subjects.** Group of people who are defined by having the function of being passive carriers of the object itself of the IPPU (psychiatric disorders requiring hospitalization). As defined the group of patients by the object (psychiatric disorders) which they carry, these
persons are classified according to the taxonomy of the mental disorders described in psychiatry, defining psychiatric disorder as "syndrome or behavioral or psychological pattern of clinical significance that appears associated with discomfort, disability or a significantly increased risk of death or pain, disability or loss of freedom." Examples of psychiatric disorders in childhood and adolescence: 1) Obsessive Compulsive Disorder (OCD), 2) behavioral disorders, 3) Depression 4) Schizophrenia, 5) eating disorders. The group of patient is likely to change in relation to the number and quality of patients admitted (considering the possible combinations of attributes and capitals of each individual patient), to the type of psychiatric disorder, and to the possible combinations of variables among the patients admitted in the group.

Agent subjects. Group of people defined by having the function of doing activities issued at achieving the aim of IPPU (study and stabilization of psychiatric disorders requiring hospitalization). Since execution of assigned activities requires the acquisition of specific skills, the agents are subdivided according to the discipline studied that legitimizes them to perform their assigned functions. Thus, the group of agents will form the called "multidisciplinary team" composed of professionals from different disciplines. For example: 1) psychiatrists medical doctors who have specialized in psychiatry, 2) psychologists who have studied clinical psychology discipline, 3) registered nurse/health care technician who have studied the discipline of nursing with specialty or not in mental health, 4) Social worker who has studied social work discipline, etc. To same extent, as it has been observed in the IPPUs, there are also agents who plan activities within the IPPU but they are not considered as part of the multidisciplinary team. These persons also have assigned activities and play an active role in achieving the aim of the IPPU. For example: 1) Cleaning staff, 2) Cooking staff, 3) Ambulance man/woman, 4) Security personnel 5) Control and sanitary regulation auxiliaries [U1], 6) Hospital attendants or guards
The agents group is likely to change in relation to the number and quality of the agents (considering possible combinations of attributes and capitals of the individual agents, and the kind of discipline that confers the membership into a professional subgroup) and to the integration of individual agents to define the group.

**Hybrid subjects.** Group of people whose criteria of internal composition is defined by a mixed component of patients and agents' subjects, that is, for performing a mixed function of receiving and being concerned by the actions of the agents (patient component) and acting and affecting patients (agent component). This group of individuals is called in the IPPU "family" or "parents" and its hybrid quality is determined by the hinge position they occupy between patients and agent subjects. On the one hand, the patient component is determined to be part of "psychiatric disorder" assigned to the patient, since the diagnosis includes axis relative to family functioning. Hence, the family is also a patient subject of the treatment (actions) of the multidisciplinary team (agent subjects). On the other hand, the agent component is determined by the actions the family have on the patient subjects because of being their parents/guardian, as well as by the activities carried out in collaboration or by recommendation of the agent subjects (multidisciplinary team) about patient subjects. Examples: 1) Patient’s mother who comes to visit the child, 2) Patient’s guardian who talks to the patient on the phone, 3) Patient’s father who comes to the IPPU for doctor’s consultation 4) Patient’s educator in child care centers, 5) Patient’s divorced parents who receive nurses’ phone calls. For its hinge condition, this group is likely of variation both for the quality of individual hybrid subjects and the quality of the relationship established among them, with the patient and agent subjects.

**Relationships of mutual regulation**
Established connections between variable elements that give to such elements mutual coherence and so adjust the susceptibility of potential variation of each element separately. These connections allow many variable elements to organize themselves following an order and forming a unit (in this case, the IPPU). Here lies the importance of regulation relationships because they allow to explain how a contextual matrix of multiple and variable elements is not an anarchic conglomeration, but an organized structure. In other words, the connections between elements explain how within the contextual matrix it is generated and maintained a constant and dynamic tension between two opposing forces: the tendency to anarchy and dispersion of the variable elements separately and the organizational effort to maintain the consistency and unity among them. For example: 1) The tension between the tendency of each HP to perform an activity according to his/her personal criteria versus the team effort in performing the activity unanimously and established by protocol, 2) The tension between the tendency of each patient to maintain his/her habits and personal habits versus the effort to adapt to the habits and routines of the IPPU.

However, prior to describing what type of relationships between elements mutually regulate their variability, it is necessary to establish a prior assumption: each variable element within the contextual matrix has assigned a normal or expected range of variability for that element. That is, each interval is determined by limits that establish the range of variability, or range of possible variations for that element. In probabilistic terms, the range of variability is what is called a "sample space" of a variable, that is, all possible states in which a variable element can be found. This means that each element has its theoretically infinite potential variability bounded within a range of possibilities that limits their potential variation within the limits of what is experimentally expected, the natural events (subject to laws of physics) or what
is normatively allowed, the allowed according to regulation (subject to social laws). Regarding the variability limits established by experience (expected), they are set by repeating a particular observed event, for example, 1) a chair can be theoretically supported on the floor or on the air, but the experience (successive observations of a chair) indicates that its expected variability is that the chair is supported on the floor on all its fours legs because the law of gravitation. Therefore, if a chair is not on the floor, it is understood that it is due to the action of an external force and in advance it is considered an unexpected event. Regarding the limits of variability set by rules (allowed), these limits are established according to criteria that determine how a variable element should behave, for example, 1) a person can theoretically behave in almost infinite ways but the internal standards of the IPPU establish behavioral patterns that a person is obliged to follow in the IPPU, 2) a nurse can theoretically do anything but has assigned a schedule of activities to sign the action she/he has to do in a given place and time. Under this assumption that sets the a priori limits of variability in advance established for each element in the contextual matrix, we can understand that the relations of mutual regulation try to maintain the variable elements within a range of variability and to assign certain order to the group of elements.

Once established the conceptual assumptions, next level of analysis will be to classify the multiplicity of connections (mechanisms of mutual regulation) among the variable elements. Depending on the type of interrelated elements these connections can be:

**Inert element - inert element.** Relationships established between non-live elements of the unit. These relationships are characterized by the reciprocal and stable regulation, that is, there is no directionality in the relationship and it does not change by itself. The types of relationships found among inert elements are:
Continent-Content. Architectural inert elements have themselves environmental and instrumental inert elements defining its location (see graphic in Appendix L). Example: 1) Inside the closed room of the hospital (continent) there are drugs, furniture, papers, pens, etc. (content) 2) Inside the closed room of the hospital (continent) can be hot or cold, be light or dark, noisy or in silence (content).

Canal-content. Architectural inert elements that limit the transit point of environmental and instrumental inert elements among different continents. Example: 1) Hallway (canal) allows the material transit of the food trolleys (content) from the hospitalization room entrance to the dining room (different continents), 2) Glass in the doors (canal) of the rooms allows to visually communicate what happened (content) inside the room with what happened in the hallway (different continents), 3) Conductive material (canal) transmits the sound of a blow in a metal locker (content) from one room to another room (different continents).

Valves-content. Inert elements that allow or stop (regulate) the transit of inert elements by a canal thanks to a mechanism. For example: 1) the gateway to the IPPU opens and closes to regulate the entry of food trolleys to the IPPU, 2) Windows regulate the transit of air of the unit from inside to outside, 3) Doors regulate the sound among IPPU areas of [U1: there is no door separating the IPPU into two areas; U2: has a door separating two areas and stops the transmission of sound between both spaces] and light (visible elements) among areas of the IPPU [U1: transparent doors in common areas, doors in rooms with window that allows to see from the bed what is happening outside and vice versa; U2: opaque doors in common areas, doors in rooms without window that do not let to see from the bed what is happening outside and vice versa].
**Reciprocal contact.** Fact that implies physical contact between two inert elements delimiting the space occupied by one element with respect to the other. For example: 1) walls that are in contact forming a right angle determine the size and shape of the mentioned walls, 2) objects on a table defines its location.

**Mutual separation.** Fact of no physical contact between two inert elements limiting the relative distance between both elements. For example: 1) two walls located one opposite to the other determine the space between them forming a hallway, 2) a room located away from other determines the degree of separation between both of them [U1: Medical offices inside the IPPU; U2: Medical offices outside the IPPU].

**Activation-deactivation.** Inert element for opening or closing other inert element limiting its mechanism of action. For example: 1) gateway that automatically opens when a fire signal is activated.

**Membership.** Inert element that is part of another inert element that defines the parts and the whole of that element. For example: 1) a record sheet is part of the patient medical history, 2) A table belongs to the living room.

**Inert element-live element (person).** Relationships established between the inert and live elements of the contextual matrix. These relationships are characterized by establishing the transitive regulations, that is, there is directionality in the relationship (one element regulates another), and can be stable or unstable depending on the susceptibility of variation of the connected elements (for example, the connection to a wall is stable because the wall does not vary, but the connection with a door is unstable because the door varies as it can be closed or opened). The types of relationships established between inert elements and people are:
Continent – Content. Inert elements (continent) have within themselves people (content), preventing persons from moving or progressing in the development of a receiving action (display, listening) or emitting action (movement, voice). The connection is stable because the state of the continent which regulates the content does not change. For example: 1) Walls (continent) stop persons' movements (content) beyond the limits established by the mentioned walls, 2) Opaque walls (continent) do not allow to see what happened (content) beyond the limits established by the mentioned walls [U1: walls of the living room are transparent; U2: walls of the living room are opaque].

Canal – content. Inert elements (canal) limit the communication of live elements (content) among different continents. The connection is stable because the canal status that regulates the content does not change. Example: 1) Hallway is the place of transit for people among the different rooms of the IPPU, 2) telephone that transmits sound from one place to another.

Valve – content. Inert elements (valve) that allow or prevent (regulate) the transit of persons (content) by a canal through a mechanism. The connection is unstable because the state of the valve that regulates the transit of content varies. For example: 1) Doors in the rooms regulate the transit of people among rooms and the rest of the IPPU depending whether the doors are opened or closed [U1: doors can be opened from inside without keys and can be closed from outside without keys], 2) Transparent windows in the doors of the rooms regulate mutual display of a person who is inside of the room and other person who is outside depending on whether there is a paper that covers the window.

Mutual contact. Fact that implies the physical contact between an inert element and a person. The connection is unstable because the type of contact depends on the action or force
that the person does on the inert element. For example: 1) A person stands on the floor because of the law of gravitation, 2) A person who touches a locker doing a force that depending on the magnitude can be considered a touch or a blow, 3) A person who has physical contact with a pen doing a force that depending on the magnitude can be considered as taking or grabbing the mentioned object.

**Mutual separation.** Fact that does not imply the physical contact between an inert element and a live element defining the relative distance and the mutual accessibility between both elements. The connection is unstable because depends on the movements or actions that the person does in order to change the relative distance between the person and the inert element. For example: 1) drugs and straps are in a room closed with keys in an area with restricted access to people who do not have the keys to open that door, 2) a patient approaches and enters inside of the control of infirmary reducing the distance between himself/herself and the HP's belongings.

**Activation-deactivation.** Person who using an inert element (instruments) makes a mechanism starts to work. For example: 1) A person with keys who opens/closes a door, 2) A person who uses a magnet to open/close mechanical straps, 3) A person who presses the switch in order to turn on/off the light, air conditioning, doorbell...

**Belongings.** Inert element that belongs to a person. For example: 1) the patient's clothes, 2) the treatment sheet written by the psychiatrist/s, 3) the nurse is responsible of injecting the medication, 4) the room assigned to a patient “my room”, 5) to be in charge of nursing, 6) the instruments of the occupational therapist [U1]/volunteers [U2].

**Use.** Inert element that is used by a person for a specific purpose. For example: 1) HP who uses a phone to contact another HP, 2) A patient who uses scissors to cut something.
**Break-Repair.** Inert element which undergoes a change in its optimum functioning state due to the action of a/some person/s, and this condition is detected and repaired by other/s person/s. For example: 1) A door lock is damaged, a nursing assistant detects this altered state of the lock and writes it down, the supervisor informs the maintenance staff, and the maintenance staff fixes the lock.

**Live element (person) -live element (person).** Relationships established between persons in the contextual matrix. These relationships are characterized by the mutual transitive regulations, that is, they are bi-directional relationships (one element regulates the other and vice versa). This type of relationships is also unstable since they depend on the susceptibility of variation of the connected elements. The kinds of relationships between people are:

**Transference.** People give the control (voluntarily or involuntarily) of their temporal, spatial, usable, social and cognitive capitals to others. Since the attributes of a person are intrinsic and not transferable, their control can not be transferred to another person. The connection is unstable because both states of the person who gives their capitals and the other who receives them vary. Examples: 1) A patient when is admitted gives their belongings to an HP who forms the multidisciplinary team: the patient delivers his/her belongings (usable capital) to the HP who welcomes him/her in the IPPU, the use of his/her time (temporal capital) is demarcated by the schedule of activities in the IPPU, the spaces where patients can move (spatial capital) are pre-determined as they are common areas, patient's rooms or spaces of the HP, the relatives (social capital) who accompany the patient at his/her admission [U1: left out of the unit; U2: enter with the patient] and visits and calls permissions are regulated under the rules of the IPPU or decision of the psychiatrist. Therefore, the patient and her/his family provide information (cognitive capital) about their status and events during the interview to the HP 2) a
nurse working in the IPPU gives the information obtained about the patient (cognitive capital) to a psychiatrist, change his/her clothes (usable capital) to put his/her uniform on, spend his/her time (temporal capital) to perform his/her assigned tasks during the working hours, he/she interacts with others HP, with patients or relatives (social capital) as the HP has a psychiatrist and patients assigned and moves through the places (spatial capital) determined by the location of the tasks performed.

Request. People ask for their belongings previously delivered. The connection is unstable because both the state of the person asking for their belongings and the person who is being asked to return the belongings vary. The transference of belongings puts people who have delivered them in a position of dependence on people who have received them, so their relationship is based on requests and deliveries/refusals. For example: 1) The patient gives his/her mp3 (usable capital) to an HP when he/she is admitted, after a while ask to another HP who works in another shift for his/her mp3 in order to listen to music, 2) HP by signing his/her contract states that he/she spend his/her time on working activities and ask for free days and holidays (temporal capital).

Continent-Content. Persons (continent) have in themselves the capitals transferred by others (content), covering, comprising, cancelling or preventing the development of a receiving action (display, listening) or emitting action (movement, voice) of the person who has transferred their capitals. Since the attributes of a person are not transferable to another, the continent of the attributes is the person oneself who owns them and their control can not be transferred to another person (see graphic in Appendix M). The connection is transitive, mutual and unstable because both the state of the continent that regulate and the regulated content vary, affecting each other. For example: 1) HP who receives the patient's belongings at his/her admission becomes the
continent of usable capital of that patient, 2) HP who has the power to decide about calls, visits and exits of the patient becomes the continent of spatial and social capital of the patient. However, the HP can not be continent, and therefore can not contain the attributes of the patient (body, psyche, life experiences and social skills) because they are not transferable.

**Canal – content.** Persons (canal) that define the communication channel and information transmitted between two different people. The connection is bi-directional and transitive because communication between people has a direction and mutually affects each other, and unstable because the state of the person-canal that regulates and the person who transmits the content vary. For example: 1) A nurse (person A) of the night shift tells what has happened to the nurse of the morning shift (canal), and this last nurse informs the psychiatrist (person B), 2) The patient (canal) who sees that his roommate (person A) is hurting himself/herself scratching his/her arm and warns HP (person B).

**Valve-content.** Persons (valve) that allow or prevent (regulate) communication among others thanks to a mechanism. The connection is unstable because the state of the person-valve that regulates the transit and the state of the people among the content is transmitted vary. For example: 1) An HP (valve) that when checks a patient's room intercepts (mechanism) a note from one patient to another before the note arrives to the latter, 2) An HR (valve) who changes patient to another room (mechanism) to limit conversations with another patient, 4) An HP (valve) that gives permission (mechanism) to a patient to see his family; 5) An HP (valve) that is physically located between two people (mechanism) to prevent they contact each other.

**Contact.** Fact of physically being in contact one person with another. The connection is unstable because it depends on the action and force people exert when they touch each other. Example: 1) An HP that hugs a patient when is discharged, 2) A patient who caresses another
patient, 3) An HP who takes and lifts a patient who is on the floor and pull him/her, 4) An HP who puts his/her hand on the arm of a patient 5) A patient that holds another patient rounding her/him with his/her arms, 6) HP who hold the body of a patient hanging.

**Separation – Approach.** Fact that consists of not being in contact with another person, defining the relative distance and the mutual accessibility between two persons. The connection is unstable because it depends on the movements or actions that people make to change the relative distance among them. For example: 1) An HP is inside the control and a patient is directed toward controlling on foot and approaches to HP, 2) HP (teachers) and patients located in the TV room where the activity of school is performed, while at the same time HP [U1: therapist; U2: volunteers] and other patients are located elsewhere [U1: the dining room where activity with the therapist is performed. The dining room and the TV room are adjoining rooms separated by a glass wall so that people are physically separated but maintaining eye contact; U2: the terrace where the workshops are developed. The dining room and terrace are separated by an opaque wall and they are not contiguous so that people are physically separated and do not maintain eye contact], 3) HP (doctors) and patients approach to speak [U1: HP (doctors) located in consulting rooms where they examine patients, inside there is also an HP (nurse), the nurse goes to the hallway and walks to the TV room to call a patient to be visited by the doctor; U2: HP (doctors) located in an office with HP (nurse), come together to patient rooms to do the examination of the patient in his/her room].

**Activation-deactivation.** A person who makes the mechanism of other person starts or stop working. The connection is unstable because it depends on the state of the person who activates it and the mechanism activated in the other person. For example: 1) An HP whose presence (activator mechanism) revives memories (activated mechanism) in a patient, because
"reminds" or "seems" to a loved one, 2) An HP that says something (activator mechanism) that offends or gets angry (activated mechanism) to another patient and vice versa, 3) An HP who distracts (de-activator mechanism) a patient with repetitive speech (de-activated mechanism) and this patient changes the activity.

**Membership.** A person who is a part, is related or associated to other/s person/s (individual or collective entity). The connection is unstable because the status of associated persons varies. Membership relationships between people are mostly generated by two mechanisms:

*Belonging.* Exchange and mutual possession of the respective capitals between two people, creating a link between both of them. For example: 1) The patient belongs to "one psychiatrist" because at the admitting this patient has transferred his/her capitals to a psychiatrist, so the psychiatrist "owns" part of the capitals of the patient. Therefore, the psychiatrist is of "one patient" because the psychiatrist gives his temporal (time) and cognitive capitals (knowledge and information) to diagnose and give the right treatment to the patient.

*Share.* Assignment and shared possession of such capitals between two people. The fact of having similar capitals, for example, sharing spaces, time, cognitions, instruments and social networking, gives people that share similar features among them, a mutual resemblance, and a feeling of mutual belonging. For example: 1) Having assigned the same tasks, the HP belonging to "nursing assistants" group have assigned the same capitals to develop these tasks, so that each HP assistant shares with others the same timetable (temporal capitals), the same places (spatial capitals), the same instruments (usable capitals), can not share the same level of education and information (cognitive capitals) and networks of relationships (social capitals).
**Contagion (transmission).** A person who transmits an idea, feeling or attitude by influence to another person. Relationships by contagion (transmission) arise from the possibility to affect each other, for that reason it is important the proximity and physical presence together, that is, sharing spaces, time, activities, etc. Thus, as it happened with the relations of membership, having similar capitals as sharing spaces, time, cognitions, instruments and social networks, gives the members of each group the chance to spend time together and share experiences, "infecting" and mutually endowing each other in a similar world view of reality and of a way of doing or behaving which can explain the existence of subcultures within the IPPU. The connection is unstable because the state of people varies. For example: 1) A patient who transmits ideas of suicide and self-harm to another patient with whom share a room, 2) An HP who transmit motivation/lack of motivation to others HP with who he/she works.

**Use.** Person who is used by someone else to be exploited for a specific purpose. The connection is unstable because the state of both live elements varies. Utilitarian relations may be legitimate or illegitimate.

**Legitimate.** Permitted and regulatory uses of abilities among persons. For example: 1) An HP (psychiatrist) who orders another HP (nurse) to follow a medical treatment on a patient; 2) An HP (nurse) who asks another HP (psychiatrist) that rules medication to a patient.

**Illegitimate.** Uses of abilities among persons which can be permitted but they are not regulated. For example: 1) A patient asks another patient to use his physical strength to riot.

**Break-repair.** A person who changes the right behavior of another person, that modification which will be arranged by thirds. The connection is unstable because the state of both live elements varies. For example: 1) An HP crying for emotional impact because of witnessing a violent situation and others HP comfort him/her, 2) A patient who has harmed
himself/herself by cutting his/her skin after the visit of his/her parents and the HP (nurse) treats the wound and listens to him/her.

**Competition.** Person who has an argument with another person because of having the same goal or of the superiority of something. The connection is unstable because the state of both people varies. For example: 1) Patients competing for receiving care from HP 2) HP who compete for being recognized as good workers, 3) HP who compete for developing their ideas.

**Hierarchy.** Person who has a relative order with respect to another person on a scale in order of importance. The connection is unstable because the state of those persons who have relative positions among them varies. The hierarchical relationships are generated by two mechanisms:

**Formal.** The formal hierarchical relationships are generated based on the rules managing the diversity of roles played by the different groups on a scale in order of importance. The rules establish a direct proportional relationship between the importance attached to the role played by a group and the capitals assigned to perform that function. For example: 1) The role of diagnosing and treating a psychiatric disorder by psychiatrists correlates with the assignation of the greater cognitive capitals (amount of information received and academic studies), 2) the function of nurses of caring correlates with the assumption of a smaller degree of cognitive capitals (more information given to other HP received from others HP and less amount of academic studies). Thus, those HP who perform functions considered more important will normatively assigned more capitals to develop the mentioned functions that the ones that perform them considered less important. Furthermore, since patients (patients subjects) do not have assigned a specific role, they are only the receivers of the actions of the agent subjects by the mechanism of transference are devoid of their capitals. Therefore, each group will occupy a
relative position in relation to other groups because the greater importance attached to the function performed the greater capitals assigned, the result will be a hierarchical structure which puts the groups with most important functions in a higher position (more capitals) in relation to the groups that have functions considered less important (less capitals).

*Informal.* Informal hierarchical relationships are generated based on the non-normative ordination of the different people on a scale in order to adequacy of the attributes of such persons to perform the activities assigned. For example: 1) A nurse who has a calm personality and wide experience (attributes) is considered more capable of calming a patient who is nervous. This adequacy between attributes and function generates confidence in other people in this nurse. This fact gives the nurse authority or ability to make decisions and that these decisions are respected by the other members of the group, that is, an informal leadership.

**Interpretative research results related to question A: Factors Model**

Once the categories of analysis regarding the factors that affect the use of the PR have been defined, classified and exemplified in the preceding paragraphs, next step will be clarify (interpret) the descriptive categories relating them to each other so that they conform an explanatory unit of analysis. Since the aim of this study is to understand how decisions regarding the use of the PR occur, relate each category of descriptive analysis with observations of situations where the use of the PR has permitted to understand its specific meaning within the complexity of factors affecting the PR use. Thus, it has been possible to integrate the different descriptive categories on a theoretical model that can explain what factors or working conditions influence on the HP when making decisions about the use of the PR (see graphic in Appendix N). According to this fact, the meaning of the main categories in relation to the use of PR is explained as follows:
Structure

Philosophical, temporal and physical dimensions of the underlying structure for each IPPU that establishes the coordinates of idiosyncratic variability of the variable elements found in this structure, defining the particular way in which the PR occur in each IPPU.

Variables elements

There is a constant variability in all the constituent elements of the contextual matrix (both inert and live), what complicates the creation of a stable and predictable environment. This variability reduces the structuring ability of the environment leading to fractures in the system and to the feeling of insecurity, what increases the willingness of the HP to use the PR in order to compensate for the risks that the structure can not eliminate. Thus, due to the insecurity generated by the variability, the PR represents the certain-secure element that reduces the variability and therefore the uncertainty (insecurity).

Patient, agent and hybrid subjects

The organization of people within the IPPU as its function is to receive actions (patients), perform actions (agents) or both (hybrid) it results in a separation (because of not sharing tasks and spaces) between patients, agents and hybrid subjects making difficult the mutual understanding. Furthermore, the unequal assumption of tasks also leads to a different perception of time as the patients get bored (time passes slowly) and the agents become stressed and tired (time passes fastly). Thus, the lack of mutual knowledge and the fatigue of HP may condition that in a situation of crisis, the option chosen to resolve the situation is the use of PR.

Relationships of mutual regulation (continent-content)

The variable elements establish connections among them to reduce their variability and therefore the uncertainty (insecurity). In particular, people who are in the contextual matrix are
formed of an intrinsic non-transferrable part (attributes) and other extrinsic and transferable part (capitals). This means the inability to transfer the body and the psyche from one person to another, each person is the only one who can contain oneself. Therefore, the HP can never be continents of the attributes of a patient, that is, they can never contain the body and psyche of a patient. Thus, when a patient is unable to "contain himself/herself" there is not any possibility to contain all actions performed through the attributes of that patient, and arises the need to use the PR. Consequently, all regulatory rules that are related to the control of attributive actions (for example: not leaving the room during a shift) are likely to require the use of force (PR) to ensure its compliance if that rule is not supported by other material (Example: room door that can not be opened from inside).

**Relationships of mutual regulation (transference)**

People have capitals that can imply possibilities of variation, that is, generate variability and therefore uncertainty (insecurity). This means that the greater capitals a person have, the more difficult is to control and predict his/her actions, for example, the bigger spatial capitals, the wider possibilities of variation regarding the location of that person (more difficult to know and control where he/she is); the bigger temporal capitals, the wider possibilities of variation in what is using the time (more difficult to control what he/she does); the more usable capitals, the more likely to use instruments in different ways (more difficult to control what he/she has and how he/she uses it); the more social capitals, the higher possibilities of interaction (more difficult to control with whom and how they interact); the bigger cognitive capitals, the greater chance of interacting with the environment (more difficult to control what information he/she has). The rules of performance of each IPPU establish what capitals must be transferred from the patients to the HP and vice versa. Thus, the more capitals will be transferred from patients to HP, the
patients will have less chance of variation (ability to generate uncertainty - insecurity) and the HP will have bigger ability to control the patients, reducing the need to go to the PR to control the behavior of the patients.

**Relationships of mutual regulation (hierarchy)**

The hierarchical organization of the IPPU leads to an inequitable distribution of the capitals among the different groups of HP. The HP performing activities considered the most important have more capitals and spend less time with the patients; in addition, psychiatrists receive a great part of the capitals transferred by the patients when they are admitted because psychiatrists are the ones who decide on the pharmacological and behavioral treatment, visits and exits of the patients. By contrast, the HP performing activities considered less important have less capitals and spend more time with the patients; these HP receive less capitals transferred of the patients when they are admitted because the HP are the ones who decide on belongings of patients, such as the use of the MP3, colors, books, TV, etc. This imbalance makes the HP who spend more time with patients have no many capitals to redirect the behavior of patients without the need of help from thirds such as the use of PR. Therefore, the fewer amount of capitals an HP has, the higher probability of having to use the PR in order to manage the behavior of a patient. Hence, the use of the PR as the last resource depends on the amount of capitals the HP, responsible for regulating the conduct of a particular patient, has.

**Descriptive results that respond to the questions related to the cause B**

The analysis of the data obtained through the interviews has identified the underlying "personal process" which results in making decisions on the use of PR. In this case, the terminology used can also help us to understand the concept: the term "process" refers to the *series of steps or actions leading to the achievement of the decisions on the use of the PR*, and
the adjective "personal" indicates that it is a process performed by live elements (persons), both for its dimension of individual and collective entities; that is, it is a process affected by both the uniqueness of the identity of the person and his/her membership to a group. Therefore, analyzing the "personal process" we will describe and understand the linking of the psychological tasks performed by the HP in their condition of unique and interdependent subjects to make decisions regarding the use of the PR.

Following the same explanatory system that was previously done with the term contextual matrix, the description of "personal process" will be done organizing the topics for discussion establishing a hierarchy of significance according to their degree of abstraction at three levels: conceptual, typological and concrete level. At the conceptual level, before starting the descriptive process per se is necessary to define the notion of "personal process" that underlies the decisions about the PR. According to the analysis of the data this process can be defined as a linking of psychological tasks that enable the person forms a framework of reference from which to detect the variability of the elements forming the contextual matrix in order to adjust their behavior to the conditions and demands of this variability observed. Significantly, this process is done by all persons who are located in the contextual matrix, not only the HP, what adds complexity to this process that can not be reduced to a unidirectional dichotomy between person-observer and person-observed. On the contrary, persons who interact in the contextual matrix mutually conceptualize the variability of one with respect to another, while both variabilities affect each other. To illustrate this: the conceptualization that a person (HP) can do on another (patient), considering it as unstable, considering its variability changeable and unpredictable. In turn, a person (HP) can consider their own variability as neutral or non-existent, because of not being able to self-perceive or to perceive how and to what extent his own
variability affects the variability of the other person. Once this has been clarified, in order to simplify the explanation of "personal process" we will do the artificial distinction between the person-observer and the person-observed to simplify the description given the aforementioned exception.

The description of "personal process" will be done from the definition described above based on the significance of each of the terms included in the definition. For this fact, we will follow the plan of levels of analysis previously mentioned. Having explained the process we follow, the personal process underlying the decisions on the use of the PR is described as follows bringing meaning to the following notions (topics):

**Form a framework of reference**

Psychological task that consists in the development of a cognitive framework that allows the person-observer identifies and evaluates the variability of the person-observed. This framework consists of a range of variability considered normal or expected, allowing the person-observer to set limits to delimit, frame, locate and understand the variability of the person-observed. According to the process of setting the upper and lower limits of the normal range, the framework of reference can be of two types:

**Absolute.** Limits of variability fixed, validated and accepted by the members of a social group (for example: multidisciplinary team). These are constructed by the combination of two tasks:

*Attribution of identity to the environment.* Assign a set of appropriate features into a place (Ex. "This is a psychiatric unit", "this is a hospital") and into a time (Ex. It is bedtime") determining the behavior expected of persons in that space and environment. That is, what is expected in a hospital is not the same as in a college, the same as what is expected in the
morning is not the same as what is expected in the evening. For example, 1) in the IPPU it is expected that admitted people have a mental disorder with certain symptoms, so that when a HP does not perceive any symptoms which shows the presence of a mental disorder, the HP does not understand why this person is admitted, 2) in the IPPU in the morning is expected higher level of activity and noise that during the night, so that when a patient do the same activity in the morning and in the evening (ex. Talk), the HP of the morning shift may perceive this activity as expected and appropriate (ex. The morning is time to speak) while the HP of the night shift may perceive as unexpected or inappropriate to the situation (ex. Night is not time to talk but sleep).

**Establishment of an interpersonal consensus.** Agree to establish the limits of certain behavior that mark a range of acceptable variability for the members of a group. This consensus can arise from a) an agreement equally established among most group members (democracy), b) the acceptance by a new member of an agreement previously established by older members (enculturation), c) the collective acceptance of a criteria established by a formal or informal leader (obedience). The existence of this collective consensus does not necessarily imply the active consent of all members of the team, what can cause conflicts. For example: 1) At a meeting of the multidisciplinary team insults will not be allowed in the IPPU. However, some HP believe that they must be flexible and allow them at times.

The absolute limits can be of two types:

**Explicit.** Reference framework read in written documents of general application. For example: 1) laws, 2) rules of internal procedure and 3) protocols.

**Implicit.** Reference framework observed in habits, acts and utterances accepted by the majority. For example: 1) "Patients are not allowed to hurt themselves".
**Relative.** Limits of changing variability. The establishment of the particular circumstances depends on the environment, the attributes and capitals of the person-observed. The relative limits of variability are constructed by the combination of three tasks:

**Attribution of identity to the person-observed.** Assign a set of features or qualities to a person who give him/her an identity. For example: 1) The HP assign some characteristics that give identity to a teenager with mental disorder. This allocation of features determines the range of variability that is expected of a 17-year-old psychotic boy, what will be different from what is expected of a 10-year-old girl with attachment disorder; that is, the identity attributed to a 17-year-old psychotic depends on the previous idea the person-observer has about what a psychotic disorder and being a 17-year-old boy means.

**Knowledge of the person-observed.** Acquisition and data storage about the person-observed that the person-observer does thanks to his/her experience (previous observations) or external receiving data through formal communication (medical history, clinical interview, meetings about cases) or informal (informal conversations). Thus, according to the information about the range of variability of the behavior of a patient in the past, an idea of the range of variability that is expected to have in the future is generated. For example: 1) An HP, who has been in charge of a patient in previous admissions, has information about that patient by his prior experience with him, by the information received at his/her admission during the clinical interview and by the information received from others HP because of their experience with that patient.

**Establishment of crossed references.** Cognitive associations generated by comparing the person-observed at present time to whom the person-observer has had previous-time-eyed experiences. These associations allow to apply the knowledge of the person-evoked as a
reference for understanding the person-observed although both of them are not exactly the same. For example: An HP has a patient who reminds him/her to another patient, or to his/her own children. According to this association the HP expects that the person-observed has a range of behavioral variability similar to the one of the person-evoked.

The relative limits can be of two types:

Explicit. Reference framework read in written documents of individual application For example: Information on medical treatment sheets, such as "Do not allow the patient to hit something with his/her right hand".

Implicit. Reference framework seen in habits, acts and utterances of a person. For example: 1) Particular opinions as "it is better than we leave her to release herself for a while."

Detect the variability

Psychological task that consists in warning the variability in the person-observed. The development of this task depends on two things:

Meters of variability. A set of devices that allow a person-observer perceive the presence of changes in the state of the person-observed.

According to their relative position with respect to the person-observer the meters of variability include:

Intrinsic or attributes. Located in the own body of the person-observer their measurements are not objectifiable: they are the sense organs. For example: 1) Eyes to see by direct perception or by perception through cameras, glass, 2 ) Ears to hear voices or noises.

Extrinsic or instrumental capitals. Located out of the body of the person- observer, their measurements are objectifiable: they are measuring instruments. For example: 1) device which takes vital signs, 2) Imaging test, clinical analysis.
**Position.** The way the person-observer is situated with respect to the person-observed being both of them located in the same space. The relative position between the person-observer and the person-observed is important because it determines if the person-observed is aware of being watched. The relative position can be of two types:

**Immediate.** The person-observer is next to or very close to the person-observed. For example: 1) An HP observes a patient while talks to her/him. In this case, both people are aware of the presence and mutual attention.

**Mediate.** The person-observer is separated from the person-observed. For example: 1) the HP observes the patient through the cameras. In this case, since there is no eye contact between both people, the person-observed may forget that are being watched, 2) The HP is reviewing the patient's diagnostic tests, at this time the patient is not aware of being watched.

**Assess the variability**

Psychological task of the person-observer that consists in determining the degree of variability in the person-observed and in this way to assess their importance or significance. This task is performed by comparing the variability observed with the range of expected variability defined by the limits of the reference framework. Depending on the result of the comparison the evaluation of the variability can be:

**Higher than expected.** The variability observed exceeds the upper limit of the framework. For example: 1) An HP hears a voice of a patient and believes that the volume and the tone is higher than what it is expected in the unit at that time, classifying it as a cry and valuing it as a sign of important nervousness, 2) An HP sees that a patient is walking at high speed through the hallway and believes that the speed of this movement is higher than what is expected, classifying and valuing it as a sign of nervousness.
Equal to what is expected. The variability observed is within the limits of the reference framework. For example: 1) An HP hears a voice of a patient and believes that the volume and the tone is equal to what is expected in the unit at that time, considering it a conversation or a comment, 2) An HP sees a patient who is walking at a moderate speed through the hallway and found that the speed of this movement is as expected, classifying it as normal and valuing it as a sign of appropriate emotional status.

Lower than expected. The variability observed exceeds the lower limit of the framework. For example: 1) An HP hears a voice of a patient and believes that the volume and the tone is lower than what is expected in the unit at that time, considering it as quiet voice, 2) An HP sees a patient walking at a low speed through the hallway and found that the speed of the movement is lower than what is expected, classifying and valuing it as a sign of sadness.

Adjust to the variability

Psychosomatic task that consists in modifying the own behavior (variability of the person-observer) to respond and adapt himself/herself to the changing demands generated by the variability of the person-observed. The person-observer chooses to perform the action (change his/her state, vary) that considers most appropriate for that particular situation, according to the assessment of his/her own capacity to respond to the variability of the person-observed. Since the abilities variation of a person depend on his/her attributes and capitals, before a detection of variability the person-observer examines if his/her attributes and capitals are sufficient to meet the demands of the variability detected. Thus, according to what the person-observer considers that his/her attributes and individual capitals are sufficient or not to respond to the variability of the person-observed, the adjustment can be of two types:
**Individual Personal Adjustment.** The person-observer evaluates his/her ability to respond to the variability observed and considers that his/her own individual action (variability) is sufficient to regulate the variability of the person-observed. The response actions may occur in the following areas:

*Speech.* The person-observer decides that talk to the person-observed is appropriate. For example: 1) An HP sees a patient that moves very fast and decides to go to talk to him/her and ask what is wrong.

*Movement.* The person-observer decides that going toward the person-observed is appropriate. For example: 1) An HP sees that a patient moves very fast and decides to stop him/her.

*Material.* The person-observer decides that using an instrument with the person-observed is appropriate. For example: 1) An HP sees a patient moving too fast and decides to give him/her medication.

*Time.* The person-observer decides that waiting and giving time to the person-observed is appropriate. For example: 1) An HP sees a patient moving too fast and decides to wait and see how he/she evolves without intervening.

*Location.* The person-observer decides that relocating the person-observed is appropriate. For example: 1) An HP sees a patient moving too fast and decides to open the door to make him/her go out to the terrace.

**Personal Collective Adjustment.** The person-observer evaluates his/her ability to respond to the variability observed and considers his/her own ability to vary (action) individually is not enough to regulate the variability of the person-observed. In this case, the individual action consists in transmitting the information about the variability detected to other people, leading to
a collective response and increasing the ability to respond to the variability observed. For example: 1) A nursing assistant enters into a room and sees a patient who is cutting her arm with a piece of a cup. The nursing assistant notices that she by herself will not be able to respond to this situation and yells at her colleagues asking for help to come to the room. In turn, the others HP who hear the screams come to the room and all together physically hold the patient in order to take the piece of the cup and prevent the patient self-harm. In this case, the process of data transmission and execution of the collective response is almost immediate because the response is urgent, but this is not always the case so it is necessary to analyze this process conceptually in order to include all cases observed. The system of collective response consists of two subsystems:

**Afferent System.** Receives and transmits information about the variability of a person-observed from the person-observer to a second person that in turn evaluates the information received. The second person who receives the information can a) issue an order to be executed by another person, b) respond by herself/himself or c) transmit the information again to a third person, and so on. The transmission channels of afferent information are:

**Personal.** Direct communication voice to voice through oral/body language. It is an immediate mechanism since requires physical proximity or presence -coincidence space/time- between transmitter and receiver. For example: 1) A nurse tells another in the control "I have just been with patient X and I saw him/her very nervous." The personal communication can in turn be “unplanned” (for example: Chance meetings in the hallway) or “planned” (for example: Meetings scheduled).

**Instrumental.** Indirect communication mediated by an instrument that transmits information. It is a mechanism mediate since it does not require physical proximity or presence -
no coincidence space/time between transmitter and receiver. For example: 1) A nurse writes on the clinical evolution sheet that patient X has been very nervous, 2) A nurse phones the psychiatrist on call. The instrumental communication can in turn be “unplanned” (for example: example: Push buttons that transmit sounds of warning, emergency call) or “planned” (clinical sheets that inform about what is recorded in writing, for example: medical evolution sheets, nursing evolution sheets, graphics of vital signs, nursing data collection sheets, treatments and observations sheets, Incident log , proposal group notebook, notebook assembly).

**Efferent system.** Transmits information about the chosen option from the person who makes the decision to other person executing that decision to collectively respond to the variability of the person-observed. The transmission channels of the efferent information (decision) are:

**Personal.** Direct communication voice to voice through oral/body language. It is an immediate mechanism since requires physical proximity or presence -coincidence space/time- between transmitter and receiver. For example: 1) A nurse tells another in the control "I think we'd better give first the medication", 2) A psychiatrist tells a nurse, "you have to inject". The personal communication can in turn be “unplanned” (for example: Chance meetings in the hallway) or “planned” (for example: Meetings scheduled).

**Instrumental.** Indirect communication mediated by an instrument that transmits information. It is a mediate mechanism since it does not require physical proximity or presence -no coincidence space/time- between transmitter and receiver. For example: 1) A psychiatrist writes on the treatment sheet the medication a patient should take in case of nervousness. The instrumental communication can in turn be “unplanned” (for example: example: A medical order by phone) or “planned” (sheets that inform about the indications in writing. For example:
medical treatment sheets, action protocols, nursing procedures, rules of internal procedures, information sheet for relatives).

In turn, depending on the process of response-response according to the variability observed, the efferent system is subdivided into two types:

**Automatic.** It refers to the method of generating a mechanical decision, without voluntary and reflection attitude. It occurs in situations that are repeated, and it is by repeating when the same answers are issued without thinking. For example: 1) in repeatedly occasions a patient hit herself/himself against the wall and the HP, every time this happens respond immediately and in the same way without speaking among them what option take.

**Deliberate.** It refers to the method of generating a thoughtful decision, considering the options for and against, with willfulness and intention. For example: 1) A psychotic patient with delirium because of poisoning refuses to take medication, the HP deliberate in team what options they have to give medication without using the force.

**Interpretative results related to research question B: Model Decision**

In the previous section, it has been defined, categorized and exemplified the categories of descriptive analysis related to the process of making decisions. However, the identification of the categories separately does not allow describe comprehensively how making decisions regarding the use of PR. For this purpose, it has been necessary to connect and clarify the different categories integrating them into the same unit of explanatory analysis, thereby that they can unitarily answer the research question. Since the question aim is to find out what process is behind the decisions on the use of the PR, each category has acquired significance when is related to the observed situations where the use of the PR was specified. This analysis process has arisen a theoretical model describing the underlying social and psychological process that
use the HP in a situation likely to use the PR with a pediatric psychiatric patient (see graphic in Appendix O). According to this, the meaning of the main descriptive categories on decisions concerning the use of PR is explained as follows:

**Reference Framework (construction process)**

The formation of a cognitive reference framework from which receiving and evaluating the information received about the state of a psychiatric patient is a construction process that requires theoretical knowledge and experience. Therefore, the HP without specific mental health education or prior experience in the IPPU have more difficulties to receive and evaluate information, what limits their ability to make decisions. This limitation in the autonomous decision making predisposes HP without specific mental health education or prior experience to respond instinctively or with "good will" in situations likely to use the PR. Furthermore, they can also act on what others HP with more experience recommend/order them to do, without the critical ability to assess whether the recommendation given is suitable or not. Therefore, the lack of a theoretical framework can lead to decisions not based on clear criteria, if not by instinct, goodwill or other HP recommendations.

**Reference framework (individual and collective)**

Since the formation of the framework is a process that every person makes individually according to their knowledge and prior experiences, each HP has a different reference framework that leads to different assessments of the same situation and thus leads to inconsistencies among HP when making decisions. Therefore, the diversity of reference frameworks prevents from unanimity and systematic protocols of making decisions about the PR. Furthermore, the different reference frameworks lead to different perspectives and opinions which can generate misunderstandings and conflicts undermining the teamwork. In addition, the framework will be
also collectively constructed according to the identity attributed to the environment and the collective consensus on the limits between the appropriate/ inappropriate behavior. Therefore, every institution and every social group has its own frame of reference from which identifying and evaluating the variability observed. This makes difficult establish protocols of similar proceedings in different institutions.

**Detect variability**

Detecting variability depends on the existence of meters that in the case of the behavior evaluation of a patient are intrinsic, that is, each HP is the own measuring instrument of the variability state of a patient. Therefore, if each HP is a meter, there may be inconsistency in taking measurements and data about the state of a patient which in turn can lead to inconsistencies in the detection of information in all HP team. Furthermore, the detection of mediate variability, patient observation through the camera without physical presence can lead to the feeling of solitude of patients since the effect of the physical presence disappears.

**Individual variability adjustment**

The adjustment of the own behavior (variability) in order to regulate the behavior of other person involves different areas in making decisions that exponentially increases the complexity of the decision. Deciding on the speech, movement, material used, and the time to use in a situation likely to the PR is much more complex than simply deciding whether to place or remove the PR.

**Collective variability adjustment**

In situations that it is required a collective action by several HP, the afferent and efferent system of data transmission among HP generates time differences between the time when the information is perceived, transmitted and received, delaying the decision and doing that the
responses issued may no longer be adaptive to the changing situation of the patient, generating errors and imbalances which may lead to the use of the PR. In addition, repeated situations requiring the use of the PR need to be externally evaluated as recurrence generates learning in which the responses are automated and there is no deliberation of the alternatives.

**Phenomenological results related to research question A: PR decision experience**

The analysis of the data obtained through in-depth interviews from a phenomenological stance has allowed reveal the internal lived experience that underlies HPs’ PR decisions. The singularity of each participant’s experience and the specificity of each PR situation made very difficult to abstract common patterns that represent “all experiences of all participants”. Nevertheless, despite the idiosyncrasy of each personal story the analysis also showed that participants shared two main aspects of their lived experience: the changing patterns of the PR lived experience in subsequent stages throughout the experiential time and the multilayered moral dimension of the PR lived experience materialized in expressed contrapunctual voices located within the psyche.

**Phases of restraints decisions experience**

The identification of the changing quality of the lived experience in relation to PR throughout time emerged by confronting researcher’s personal notes about her feeling and impressions after observing PR events in the field with participants’ verbalizations about their lived experience while describing a PR event in which they were involved. From this analysis emerged three differential but consecutive stages in the evolution of HPs’ quality of their lived experience in relation to PR:

*Traumatization and Estrangement.* This is the first stage that corresponds with the initial period in which a HP encounters PR events. During this period HPs experience shock and
surprise (“firsts PRs hit you a lot”, “at the beginning you say to yourself, what terrible! What’s going on?”), fear (“at the beginning you get scared, right?”), hided desire to cry and to leave the job (“after restraining her [the patient] I had to leave the room, I went outside to cry because they cannot see you crying, I thought I can’t cope with this, I’ll quit”), insecurity (“you think maybe this PR happened because you’re not experienced, because you don’t know enough”, “you don’t know what to do, you hesitate”), dissonance and estrangement (“to restraint someone is something unnatural, it is not your ideology”, “you never think as a doctor, am I going to restraint people?”), need of being supported by other colleagues (“at the beginning I relied a lot on another nurse”, “after the PR they approached me and said, it’s fine, we understand you, someone hugged me and it was very comforting”).

**Rationalization and coping.** This is the second stage that corresponds with the subsequent period after the HP has overcome the initial shock of witnessing and participating in PR events. During this second period HPs move from being lost or surprised to understand and accept PR as a “necessary” reality. This process requires an active effort on behalf of the HP (“you have to convince yourself”), as well as a passive eroding process from the initial personal stance to a collective position shared with other HPs (“with time you become to understand that PR need to be done, that PR are necessary…”). At the same time, the process of accepting PR as necessary also generates feelings of helplessness and frustration (“nobody likes doing PR, is the last option of the last option, when there is no other option, it is what we have to do”), while the symptoms of the trauma ease (“maybe more traumatic at the beginning”) and a need to belong the healthcare team “it is very important not to be left alone and that nobody feels alone in this situations”.
**Incorporation.** This is the final stage of the quality of the PR experience in which PR become for the HP part of his/her job as well as a constituent element that has conformed him/her as the HP he/she is. Reaching this point, the HP integrates PR as part of the clinical practice considering that PR are “part of the treatment, that’s all”, that it is important to explain this to the patient “you do not understand it, but you need this, we are taking care of you”. Likewise, there is a progressive embodiment of the PR lived events as experiences that leave a footprint in the body (“this is what I call war wounds”, “PR always leave a trace of pain”, “PR always left a mark on you, as a hole when you pierce a wall, you remove the nail, you put gypsum and you cannot see the hole that the mark is there, we wear a lot of dots, and there is no one who can remove them for you”) that in turn conform the HP’s characteristics “I’ve become more defensive”, “I’m now very confident of what I’m doing”, “you need to protect yourself”, “maybe no trust as much as I used to”.

Importantly, despite the progressive nature of the quality of the PR experience, HPs expressed that there are two things that prevail: estrangement (“you never get used to this”) and questioning (“at the beginning you wonder/self-question whether it was mal praxis, well, at the beginning and now”).

**Moral voices**

The final process of analysis through the listening guide method helped identify five main voices that reflected the moral conflict that HPs lived while deciding about PR. The voices have been named and described as follows:

**Intentional voice.** It is characterized for a sense of desire and being willing to do whatever possible to avoid PR. This intention is addressed towards different persons involved in the PR event aiming to achieve different outcomes (actions) with each of them. For example, the
HP tries the patient to calm down, control behavior, move location, take medication; the HP tries the team to be aware, to be unified; the HP tries other HPs to avoid seclusion and PR, deal with the trauma, do something different to avoid the treatment failure; the HP tries everybody in the unit to be safe.

**Incapable voice.** It is helpless, forgetful and dubious. It is unable to do what the HP was trying to do in the “intentional voice” so that he/she had to use the last resort: security or enforced medication. When the use of physical force starts the HP does not remember clearly or he/she is not sure how the situation evolved, or he/she can’t remember what happened. In this cases the HP refer he/she really don’t want to do it.

**Caring voice.** It is empathic, sensitive, helping and emotional. It is dubious and focused on the patient, understanding that the patient suffers and has feelings.

**Standardized voice.** It is affirmative, positive, and certain. It conforms and repeats same expressions as in the protocols and standards of care in relation to the use of PR. The HP remembers and seems to be comfortable, even confident in this voice, as if this voice fits what is expected of him/her to comply with seclusion and PR standards.

**Emotional voice.** It is brief, intense, addressed towards the HP’s own feelings. It talks about uncertainty and fear.

These five voices represent the sides of HPs’ life experience related to PR use, interacting in an interplay of tensions, incongruences and suppressions. On the one hand, the main tensions exist between the intentional and incapable voice and between the caring and the standardized voice. In the first case, while the intentional voice is willing to do and wants others to do, its counterpart is the incapable voice which finds obstacles that can only be overcome using what the intentional voice wants to avoid: the use of physical force (security and enforced
medication). In the second case, while the caring voice is willing to listen to patients and experience with them, the standardized voice focus on keeping them safe by controlling their behavior. The caring voice is insecure and emotional and the standardized voice is confident and efficient. In fact, the caring voice seems to look for approval and validation while this need for validation is not present in the standardized voice, as it represents the official, validated discourse. On the other hand, the main incongruences exist between the intentional and caring voice and between the incapable and the standardized voice. The intentional voice does not match the caring voice, as while the intentions are mainly addressed to control and manage behavior, the caring voice is aware that the patients suffer (emotions). Despite this, the actions and desires are not addressed to alleviate suffering but to control behaviors. Likewise, the standardized voice does not match the incapable voice, as both voices seem not to be aware of each other. The standardized voice seems to ignore the obstacles the incapable voice finds to follow the standards and, the incapable voice seems to ignore that the standardized voice has rules and stakes that do not help to overcome the obstacles. Finally, the emotional voice is suppressed, as it is not present throughout the transcript. However, even not always explicit, emotions of uncertainty and fear [“I felt a little bit, you know, nervous, but also (silence) you know I felt like it could be handled but I wasn’t sure, you know, I felt uncertain, a little bit frightened”] are present in the discourse and are influencing what is being said or silenced.

**Descriptive results related to research question C**

Two complementary sources of information and analysis have served to respond to the research question “How PR protocols can be improved to better guide HPs’ PR decisions?”. On the one hand, participants responses to the interview question “How do you perceive the PR protocol in terms of guiding PR decisions?” have been analyzed and on the other hand, observed
and recorded PR events during fieldwork have been analyzed and confronted with the WHO’s recommendation for seclusion and restraints (2005).

**Participants’ perceptions and opinions about PR protocol**

In general terms, HPs find the PR protocol useful in some aspects but this is not the main element that guide them to make decisions about PR use. At the same time, HPs find protocols difficult to implement and they suggested proposal for improvement.

In relation to the useful aspects of PR protocols, HPs consider that PR protocols are useful to “validate PR”, to “ensure that PR are reported”, to “clarify in which situations there is no other option”, to “share accountability between psychiatrists and nurses”, to “evaluate a PR intervention”, to “learn for the next time, I think about it when I fill the form”, to “periodically review patient’ vital signs”, to “help new HPs know how to act, avoids uncertainty”, to “legally protect HPs”, to “protect the patient”. Importantly, none HPs stated that it was the PR protocol what comes to their mind when a PR situation occurred to guide them in order to know what to do. Instead, in order to know what to do in a PR situation they used their “intuition”, “handling strategies”, “knowing the patient”, “keep calm”, “knowing other HPs in the team”, “the experience” and, “assuming some risk”.

As far as the difficulties in implementing PR are concerned, the main one is the lack of flexibility of PR protocols to adjust to the singularity of each patient’s state and situation “we are working with persons not with papers”. Furthermore, lack of awareness of the PR protocol, lack of agreement with the PR protocol and lack of capacity to implement the PR protocol are other sources of lack of compliance “the problem is that not always everybody is aware of the protocol, not in every case everybody agrees with the protocol, despite it is assumed that yes, we always everybody implement it”, “sometimes people don’t know, sometimes people are scared
and leaves, and sometimes not all can go and do the same thing within the protocol”. Another difficulty is that PR protocols have voids that leave aspects unclear “it doesn’t tell you exactly what you need to ask”, “who exactly should exact PR is very controversial, it’s assumed that it is a matter of nursing but I don’t know where is this written”, “the protocol doesn’t mention whether you need to call the doctor to remove PR”. To overcome these difficulties, HPs suggest the following proposal for improvement “to make it very concrete and specific, not leaving room for misinterpretation”, “the ideal protocol is the one that according to its general norms, it can be adjusted to the specific child’s situation”.

**Comparison between WHO guidelines and field notes**

In this section, observed PR events have been dissected according to each PR aspect regulated in WHO’s recommendations (2005) so that the PR events observed can inform whether or not such guidance match HPs’ reality when facing PR decisions. This is summarized as follows:

*“The terms seclusion and restraint may need to be defined”*. Professionals use different terms, definitions and interpretations to refer to physical restraints events (hold, restraint, contain, therapeutic immobilization…) and there was not a correspondence between the term used and the kind of PR implemented. This may suggest that the boundary between what it is and what it is not a physical restraint event is not clear. Importantly, terms used in the literature specifically with children such as “therapeutic holding” may refer to the observed “hugs” that seemed to have a purpose of physically holding a child instead of with violence, with affection. This, together with the fact that HPs describe children as “more unpredictable”, “smaller and more flexible”, “they do not surrender, they keep fighting”, etc. indicate that PR with children are different from adults, so specific terms and definitions for PR with children might be
necessary. In addition to this, there were certain types of limitations of the patient’s movement (i.e. putting a belt on the patient while he/she was going outside the IPPU for a medical check) that HPs did not consider PR, as if they were “invisible PR”.

“Different types of seclusion and restraints that may apply in different circumstances”. The variety of PR events observed made very difficult to categorize them in a set typology. Nevertheless, the following variables might be used to classify the different types of PR events: temporality (moment and duration), means (number of people, material, [there is a wider variety of materials than the so-called “authorized equipment”, pillows to avoid patient’s spit/shout, blankets, leather belts, etc.]), space (onset-end location), treatment (medication), restriction level (number and kind of limbs restrained [it varies from having the belts prepared in patient’s bed to “five points” mechanical restraints; likewise, the physical contact that PR involve can be described as a continuum that ranges from cares or gentle touch towards wrestling until mechanically restraint a patient]), intensity (level of violence: movements, voices), interaction (agreement, fight) and willfulness (voluntary, resistant).

“There needs to be ongoing active and personal contact with the person subject to seclusion or restraint”. The interaction during PR events between patients and HPs is very intense. Verbalizations of “hate” and/or “love” are common. The presence in patient’s room after PR raises many questions about whether or not someone should be in the room with the patient or observing from the camera, and if so, who should be the person as the same persons who restrained the patient are also the ones who take care of him/her. Likewise, patients may “refuse” receive care from the same person who restrained them as HPs may avoid encounter the patient after a violent PR event “to not reactivate the process”. Hence, if
monitor from the camera, patient feels alone but if HP is present, emotions may reactivate and it might be more difficult for the patient to calm down.

“A patient who is restrained or secluded shall be kept under humane conditions”. During PR events, patients may “refuse” being taking care of as a form of “resistance” from HPs’ activities. For example, patient’s negative to change the pyjamas under HPs request. Likewise, HPs may avoid encounter the patient after a violent event has happened to avoid an ongoing conflict with the patient as well to prevent “reinforce the behavior rewarding it with the HPs’ presence”.

“Restraints should be used for the shortest period of time necessary”. The duration of the application of mechanical restraints is mainly determined by HPs’ task-duties (“we’ll release you as soon as we finish”), IPPU activities (“we’ll release you after lunch”) and patients’ needs (“I need to go to the toilet”) and HPs’ perception of patient’s attitude (patients’ may behave disruptively while restrained to attract professionals’ attention, which makes HPs prolong PR [“if you are like this I cannot release you, you have to show it to me”]). Likewise, as HPs cannot predict patient’s behavior after removing mechanical restraints, they remove restraints progressively (“What is the minimum time possible? You never know”).

“One period of seclusion and restraint should not be followed immediately by another”. PR events may repeat in the same patient consecutively (which leads to routinization/systematization of PR use), in different patients quasi simultaneously (which leads to a domino effect of subsequent PR), it the same HP (which leads to fatigue and “inertia effect”).
“May be permitted by legislation when they are the only means available....”. There are not alternative means to contain variability (patients’ potential behavior) related to attributes (body and psyche, i.e. hitting, running, shouting). In addition, there is the paradox that HPs with less capitals or resources (i.e. auxiliary nurses) spend more time and are in charge of implementing medical orders on patients.

“... to prevent immediate or imminent harm and danger to self and others”. All PR events analyzed were triggered by patients’ refusal/incapacity to follow IPPUs’ norms/rules. HPs interpreted patients’ reactive behavior to norms differently mainly depending on whether HPs knew or could understand the reason for this behavior; when this deeper interpretation was not possible the most common was to consider that patient’s behavior was disruptive and/or dangerous so it needed to be stopped. Importantly, HPs could not clearly distinguish between “unpredictable/unexpected behaviors” and “at risk/dangerous behaviors”. Also, a paradox that HPs encountered is that PR are used to prevent harm, but at the same time, PR cause harm. Despite this contradiction HPs tended to the prone decision to use PR vs. not intervene. This might be due to the fact that the IPPU are “split brain institutions” (Gigerenzer, 2008); this means, that if a problem occurs because PR were not used when necessary it can be detected (i.e. no PR so a patient or others get hurt), but if a problem occurs because PR were used when unnecessary it cannot be detected (i.e. PR used when there would not have been harm without PR). Thus, only “one side” of PR decision-making consequence can be tested, so the other side result is always unknown, therefore not evaluable. Hence, since HPs cannot know whether PR have actually prevented harm or not, this may lead to a bias in assessing PR efficiency in preventing harm.
“Legislation should ban the use of seclusion and restraints as punishment or for the convenience of staff”. HPs may lack resources for implementing medical treatment and to have to manage patients’ behavior without using PR, so HPs may use PR as a certain alternative to ensure that they control patients’ unpredictable/disruptive behavior. For example “if you do (not)____, then we’ll restraint you”. On the other hand, professionals may try to avoid to use restraints feeling frustrated after using restraints “we didn’t want to tie you up, you’ve forced us to do this to you”. In addition, HPs may experience insecurity due to the uncertainty generated for the variable nature of the elements that constitute the IPPU, in this sense, PR may also play the roll of the “safe-certain element”.

“Restraints may only be authorized by an accredited mental health practitioner”. The person who detects an at risk situation, may be different from the person authorized to decide, which in turn can be different from the person who signs the use of PR, and the person who ultimately implement PR. This distribution of responsibilities/tasks make difficult to state who is accountable for a PR event and who should evaluate the appropriateness of the use of PR in particular situations. At this point, psychiatrists were the HPs authorized to decide and evaluate whether a PR event was adequately indicated. This might be problematic as there is not an independent body who evaluates PR decisions without being involved in them and not being part of the healthcare team. Hence, psychiatrist find themselves in the situation of evaluating other HPs’ PR decisions being part of the same team “it is complicated, as on the one side nurses are your allies, to whom you also need to protect as well, they also need to feel validated by you”. In addition to this, the authority to decide about PR and evaluate PR may also put psychiatrists under scrutiny as “those who are systematically present are nurses”, therefore, if the psychiatrist was not present to witness the
PR situation his/her authority/capacity to evaluate the PR decision might be diminished “they call you on the phone you might be in the emergency and can’t go there immediately and then you arrive when everything was done”. These difficulties and consequences in authorizing PR decisions might have as a consequence that psychiatrists avoid evaluating or commenting on other HPs’ decisions or that fractures or conflicts may arise within the healthcare team members.

“All instances of physical restraint or involuntary seclusion, the reasons for them and their nature and extent shall be recorded in the patient's medical record”. HPs record PR events depending on their conceptualization of PR. The mentioned “invisible PRs” do not get recorded as they go unnoticed. It is also very important to define who should record these events as only nurses and physicians write the reports, preventing other professionals and patients from adding to the record of these events.

“Records of all seclusion and restraint should be recorded in a register, which is accessible to a review body”. There is not a standardized format to record PR, and judges come to IPPU once a week to check whether the newly admitted patients meet legal standards. Importantly, judges do not review patients again and they did not look into PR events records.

“Patients’ family members and/or their personal representatives may need to be immediately informed when patients are subjected to seclusion or restraint”. The broken homes from which many psychiatric patients come may make difficult to find a protective element on patient’s families when reporting about PR event. Likewise, HPs’ may report the PR event justifying it based on patient’s behavior, as if PR events happened due to patients’ disruptive behavior. Another aspect of this report is the term “immediately”, which might be
problematic as some PR events may happen during the night time. Finally, if parents are co-admitted with the patient at the IPPU, they also learn how HPs manage patients’ behavior using PR so parent may in turn request HPs to use PR if they cannot manage their child’s behavior.
CHAPTER V: DISCUSSION

Summary of research findings

The purpose of this study was to explore HPs’ decision-making process about the use of PR in IPPU. Aiming to explore HP’s decisions about PR use comprehensively, this research was tackled from a qualitative approach, with phenomenological and ethnographic strategies. This methodology has served to address the contextual factors associated with PR events, the interaction between all actors involved in PR decisions, the underlying psychological process, and the personal lived experience that underlies PR decisions from an ethical perspective.

In relation to the contextual factors, it was found that the IPPU behave as a “contextual matrix” compounded by a structure within which inert and alive element interrelate in relations of mutual regulations so that an unbalance in the equilibrium of such relations may lead to PR. Particularly, despite the multiple net of forces involved in the occurrence of a PR event, the main factor associated with the use of PR lies on the contain capacity of the contextual matrix to limit patients’ (variable elements) behavior (range of variability); in other words, the IPPU’s capacity to limit or regulate the range of acceptable variability implicitly, for holding within it the potentiality of patients’ behavior without needing to use physical force (PR). Importantly, it was found that the IPPU’s contain capacity depends on the stability (non-variability) of the regulatory elements (containers) of the IPPU, while at the same time the regulatory elements (i.e. HPs) are also variable elements. The paradox of the “contextual matrix” (IPPU) is that it is a “variable container”, which in turn leads to uncertainty-insecurity among HPs. Hence, HPs use PR as a “secure” or “safe-certain” element to reduce the uncertainty-insecurity despite it may also cause harm. In addition to this, another important aspect that limits IPPU’s contain capacity is that variability (behavior) related with attributes (body and psyche) cannot be contained; it means, it
cannot be included within the regulatory elements of the “contextual matrix” as the body is the continent of the psyche and vice versa. Hence, in order to control behavior (body: movements, voice, etc.), HPs need to handle or restrain the patient. In this regard, in order to handle and not restrain a patient HPs need alternative resources (capitals) to PR and again, the paradox in this case is that HPs that spend more time and implement norms on the patients are those with less resources.

As far as the interaction between all actors involved in PR decisions is concerned, it was found that the relations between actors depend mainly on the assigned function of the person within the IPPU. There three main functions to play: passive elements (receive treatment-patients), agent elements (apply treatment-HPs) and hybrid elements (receive treatment from HPs and apply treatment to patients-relatives). The interaction between these three groups is very complex at individual and collective level as it is not symmetric or reciprocal. However, given that persons are not only affected by factors, but they are also porters of factors all actors involved in a situation influence each other. Hence there is no way not to affect the scene or in other words, there is no place for neutrality on the IPPU.

In relation to the psychological process that underlies the decision process about PR use, it is an individual and collective process that depends two processes: building a reference framework from which to evaluate the observed variability, developing a system of receiving and transmitting information about the observed variability as well as the intervention to regulate such variability. In regard to the reference framework, it was found that without a reference framework it is not possible to make decisions, and it in turn formed through a combined process between learning from theory and from experience; this is the case of the novice HPs who need to rely on the more experience or “expert” to make decisions. Likewise, the development of a
reference framework is an individual and collective process, it means the personal background of each HP leads to a diversity on reference frameworks, but at the same time, the shared place, time and experiences among HPs make them build a similar reference framework that unifies the mentioned diversity. In relation to the system of receiving and transmitting information, the process of making decisions depends on the information received either directly (primary source – HP observes the situation) or indirectly (secondary source – HP receives information from another person about a situation). At the same time, depending on the evaluation that HP make about his/her own capacity to regulate the observed variability, the HP may decide to act alone (individual and immediate decision) or to ask other HPs to help him/her deal with the situation (collective and deferred decision. Therefore, the process of information transmission between times, spaces and people may lead HPs to make adjusted decisions appropriate to the situation but also unadjusted decisions based on what other person has told that it has occurred in previous time, other place with different people.

Finally, the personal lived experience that underlies PR decisions is characterized for different stages of such experience that start with a traumatization and shock, that once this is overcome, the HP learn how to rationalize PR and cope with them, finally the HP incorporates the PR experiences as part of their job while they leave a mark that can never be totally overcome. Likewise, HPs face certain contradictions while making PR decisions concretized in the identified voices: intentional, incapable, standardized, caring, and emotional. This way, while HPs try to avoid PR, they feel incapable of doing so, and justify this behavior by referring to the protocol. Nevertheless, following the protocol might sometimes get in conflict with empathizing with the patient, and this lead the HPs to feel a set of emotions that range from fear, anger, sadness and frustration.
In short, it can be said that PR decisions are context dependent, interpersonal and interactive, culturally shaped, emotionally intense and morally charged.

**Contribution to new knowledge**

To assess whether this study’s findings help improve the body of knowledge on the area of HPs decisions about PR in IPPU it is necessary to confront the reported results with the gaps identified reviewing previous articles that focused on studying HPs’ decisions about PR use. Due to the absence of optimal studies in the literature, four studies were selected (Larue et al., 2010; Lindsey, 2009; Moylan, 2009; Mann-Poll et al., 2011) despite none of them specifically refer to HPs who work in IPPU nor do they match this proposal’s definition of PR. Reviewing these articles helped identified the following gaps in the literature: there are no studies that explore the particularities of PR decision-making in IPPU, similarities and differences between different HPs’ decision-making processes have not been studied, no study used the naturalistic perspective, the underlying psychological process and personal experience leading to PR decisions remains unexplored, the reasons for the varying results that correlate to the arbitrariness of PR decisions, despite the existing PR protocols, are unknown.

In relation to the particularities of making PR decision-making in IPPUs in relation to adult psychiatric units, a set of differences were identified: first, the physical contact or manner of restraining in children is different from adults in that it was observed that “hugs” seemed to have a purpose of physically holding a child, but instead of with violence, with affection. In the attempt to regulate patients’ behavior, there was a physical contact continuum that ranged from affective cares, taps and hugs until violently holding and restraining the patient. Likewise, the manner of implementing PR is different in children as they are “smaller and more flexible”, “they do not surrender, they keep fighting” so PR might be more violent and intense in children
that in adults. Second, HPs described children as “more unpredictable as they go from 0 to 100 in seconds, adults you see them coming” which made HPs feel more unsecure as “anything could happen any time” and “it is more difficult to anticipate and intervene on time”. Third, HPs were prone to unconsciously incorporate in their reference framework (having as reference points) their own experience during infancy or with their own children to assess children’s behavior. This in turn made HPs have more intense feelings about PR with children “you feel more sorry”, “any time I have to restraint a child, may daughter comes to my mind”. Fourth, children unlike adults depend legally and emotionally on their family, therefore, patients’ relatives influenced or participated in PR decisions either if they were present on the IPPU, as well as if HPs reported them about a PR event. Fifth, unlike adults, children have different developmental stages according to their age and growth process, HPs had to be able to identify what kind of behavior is to be expected according to the child’s developmental stage. Hence, in the case of children, in order to assess their behavior, HPs need to consider both their development stage and their psychiatric diagnosis, which made more difficult to incorporate all these data in a fast decision as PR. Finally, the cultural component of considering children subjects of protection by adults, made HPs be more risk averse and so rather choose to intervene in a possible dangerous situation, using PR as a mean to prevent potential harm.

As far as similarities and differences between different HPs’ decision-making processes are concerned, this study has found two main aspects to consider: first, not only HPs but all persons present at the IPPU at the moment of a PR situation, influence the situation and may play a role in it. Therefore, studies that only focus on nurses are missing a wide range of different persons that are also involved and making decisions on the process (i.e. cleaning staff, guards, patients themselves); second, the hierarchical distribution of professional positions make each
professional group (psychiatrist, nurses, nurse assistant, psychologist, etc.) to have different capitals (temporal, spatial, cognitive, utilitarian, social), which in turn make each HP group to have a different perspective from which to evaluate patients’ behavior and so make decisions about PR. Therefore, this means that different HPs do not take PR decisions differently, but they make PR decisions from different perspectives. To provide some illustrations about the notion of perspectives it may be useful to explain the following: in regard to the temporal and spatial capitals, HPs have assigned tasks according to their professional position (i.e. psychiatrists do consultation, nurses take care of patients’ hygiene and meals, etc.), this make different HPs to be in specific places at specific times. Hence, different HPs see or interact with patients in different situations, which in turn makes each HP group to receive different information about the patient and so have a different perspective on patients’ behavior (i.e. psychiatrist tend to see patients not in interaction with the group while nurses tend to see patients in group or in their daily activities). In addition to this, the scope of responsibility for the patient’s care/treatment also varies depending on each HPs in terms of space and time; for example, while psychiatrist make decisions that relate to the future of the patient outside the unit (i.e. discharge plans), nurses make decisions according to the current time and space (“here and now”) as they do not decide about patients’ permissions or discharges. In relation to the cognitive capital, depending on the HP group, each HP has specific theoretical background from which to evaluate the received information (i.e. medical-psychiatrist knowledge, psychological knowledge, nursing knowledge, social worker knowledge, etc.). Likewise, each HP group has a specific role in the system of receiving-transmitting information system. It means, while certain HPs (i.e. nursing team) are in charge to detect (primary source) and transmit information to other HPs (i.e. psychiatrists, teachers, psychologist), the HPs recipients of information are in charge to make decisions and
transmit this decisions back to the primary detectors HPs. Therefore, there is an accumulation of information in the HPs recipients of information so psychiatrist count on more information than other HPs to make decisions, such as PR decisions. In relation to the utilitarian capital, depending on the objects and clothes of HPs, their role in PR decisions may also change. For example, psychiatrists dress smart casual while nurses wear scrubs, guards and nurses have magnets and keys to put PR while psychiatrist don’t have these tools, this differential clothes and tools may influence person’s predisposition to get involved in implementing PR.

In regard to the contribution made to understand the psychological process and personal experience that underlies PR decisions it can be useful to evaluate whether this study’s results are able to respond to the questions raised by analyzing the previous studies. First, Larue et al.’s (2010) study raised the questions a) “how do nurses “anticipate situations” that may result in PR use?” and b) “why do nurses not consider the complexity of factors that may influence a patient’s behavior in evaluating the situation?”; to answer the question a) the notion of reference framework can be useful as HPs evaluate patients’ behavior (variability) based on this framework which is built through a combination of collective and personal tasks that serve to set the limits that establish what it is expected from a particular patient. Based on these pre-established expectations, nurses can predict what is expected to happen if the patient shows certain behaviors (“hints”); question b) can be answered considering the process of evaluating patient’s variability, as in this process nurses do not assess the reasons for that particular behavior but whether that behavior (level of variability) may put the patient and others at risk or not. In other words, in a conflictive situation nurses do not assess the causes but the potential consequences of such behavior. Second, Moylan’s study (2009) made the assumption that nurses’ agreement in the evaluation of the level of aggression is the same as nurses’ decision to
use PR. This study’s findings has shown that this is not the case as many other influences beyond individual nurses’ decisions according to solely individual patient’s behavior are affecting PR decisions. Results showed that PR decisions are collective (HPs try to reach consensus and different people are involved) and context dependent (the level of risk if not the same if the patient is alone in his room as if he is in group). Third, Mann-Poll et al. (2011) study found an interaction effect between raters’ characteristics and vignette characteristics that was not discussed. This point can be explained with this study’s results as each person in the IPPU has been found to be singular having particular attributes (body, psyche, life experiences and social skills) and capitals (temporal, spatial, utilitarian, social and cognoscitive). Hence, the interaction between each HP with each patient in each particular situation will be different, leading to mutual influences and responses. In relation to this, it is also important to consider that HPs adjust to the observed variability, it means, depending on the self-evaluation on whether the HP can alone address patient’s behavior or not, the HP’s response will be different. Of course, as each HP is different, the self-evaluation will in turn be different and so explain the interaction effect between raters’ characteristics and vignette characteristics. Another question raised by Mann-Poll et al. (2011) study was whether there are influential unconscious aspects related to PR decisions. In this regard, the exploration of HPs’ lived experiences about PR decisions has shown that HP’s psyche is compounded by multiple internal voices that reflect a set of internal contradictions in which HP feel “incapable” of doing what they “intend” to do, not to use PR. Likewise, PR events are “traumatic” experiences that HPs unconsciously embody and conform their clinical practice (i.e. being more self-defensive).
**Recommendations for education and training**

The results of the study reflected different aspects that may suggest new approaches in terms of HPs education and training about PR. First, given that all persons present in a PR situation are susceptible to get involved in a PR situation it seems plausible to suggest that all persons, and not only the nursing team and guards, need to receive education and training about PR. Likewise, the PR decision is generally taken collectively or in consensus as it is also applied among different persons; hence, it seems pertinent that training and education is addressed to teams and not to individuals (i.e. self-defense techniques). The purpose is that each team member knows what is their role and what they need to do in a coordinated manner to address a PR situation. This is particularly important when there are new HPs in the team that might be lost without knowing what to do in an emergency situation like PR. Second, given that in order to make PR decisions it is necessary to have been built a “reference framework”, it seems necessary that HPs are educated in psychological theories to understand patients’ behavior, that HPs receive information about the model of care and therapeutic purposes of the IPPU treatment to understand what is to be expected from their role and from patients’ behavior, that HPs are allocated a learning period at the IPPU so that they learn from their own experiences as well as from other HPs’ recommendations. Third, given the psychological impact that PR experiences have on HPs, it seems necessary not only provide education, but also institutional and psychological support. Team leaders support has been perceived as very important to help overcome the trauma cause by a PR event, and psychotherapy may help HP express and understand their emotions so that these do not get repressed and embodied affecting HP’s future personal and professional life. Finally, the particularities of PR events among children makes
necessary to develop specific training and educational programs that address the different features of children compared to adults.

**Recommendations for clinical practice**

This study’s findings have shown that a complex net of contextual factors may lead to PR events; among these factors, three of them seem of particularly importance in terms of modifying clinical practice.

First, the lack of correspondence between rules, norms and orders that HPs have to implement on patients while lacking the resources for doing so need to be revised (i.e. medical order of keeping a patient in his/her room while lacking the material to do so –closed doors). This incongruence between norms and resources may lead HPs to use PR as the only mean available to implement that order or rule. Likewise, a redistribution of capitals (resources) among HPs not only based on the hierarchical position but according to the time and activities the HP perform with the patient may help HPs have more resources available to make PR less necessary.

Second, the transference of capitals from patients to HPs on admission leave patients’ in a dependence position in relation to HPs that may cause differential perception of time – patients’ boredom and HPs’ fatigue- which generate patients’ frustration, lack of cooperation and conflicts between patients and HPs. Hence, including patients’ in IPPU activities giving them a more active role, avoiding a “fragmented safety culture” in which safety issues are solely placed on HPs’ responsibility while patients are excluded from building a safe environment may help balance the division of labor and so the perceived boredom and fatigue by patients and HPs respectively.

Third, the transmission of information system has been shown to be crucial in order for HPs to make decisions adequate to each situation. The separation between those persons
detecting and transmitting primary information, and those who make the decisions and transmit
the information so that the decisions can be implemented generate frequent information errors
that in turn lead to decisions errors, that may lead to PR situations. Due to this, it seems pertinent
to integrate the detection of information and making decision processes as close to each other as
possible, avoiding the gaps between time and space.

Fourth, the IPPU physical characteristics, i.e. layout, quality of materials, etc. need to be
revised so that the contain capacity of the IPPU is as highest as possible. To do that, the IPPU
architecture need to ensure that disruptive stimuli are not transmitted without HPs’
control/awareness (i.e. visibility and sound transmission that generate patients’ reaction that the
IPPU cannot limit), that the materials included in the IPPU are not potentially harmful (i.e.
unbreakable material, soft walls).

Implications for future research

Some recommendations for future research can be inferred from this study’s results and
methodology.

First, this study showed how the definition and terms used to identify PR are inconsistent
and that there are different types of PR interventions depending on different variables. Therefore,
it is necessary to reconsider current systems to record and measure PR events as they do not
embrace the variability and singular quality of each PR event. More reliable methods to record
data about PR events and better systems of PR metrics are the first necessary steps to collect
accurate statistics that can show the reality about PR. In this regard, there is no observational
instrument fully developed with stated reliability and validity to measure PR with youth, so an
observation guide need to be developed through a sequential exploratory design and pretested
through a pilot study to generate data on inter-rater reliability. In addition to this, another
possibility to improve data collection on PR is that the units of measurement of PR events as a variable in quantitative studies do not be reduced to “yes/no PR” but instead become expanded to:

- Presence or absence of PR events by child/adolescent admitted in an IPPU (categorical measure scale).
- Number of PR events by child/adolescent admitted in an IPPU (continuous measure scale).
- Number of minutes of PR by child/adolescent admitted in an IPPU (continuous measure scale).
- Level of intensity of each PR event by child/adolescent admitted in an IPPU (ordinal measure scale).
- Number of hours that all child/adolescent were maintained in PR by the number of psychiatric inpatient days per 1,000 hours (continuous measure scale).

Second, despite the usefulness of this study it was limited in two main aspects that are necessary to overcome with future studies: a single researcher and patients and families’ role in PR decisions was not addressed. In regard to the potential bias and lack of comparable data between researchers due to a single researcher who collected and analyzed information it is recommended that this study be replicated with a trained research team. This team can provide comparable data between researchers and settings as well as improve the presence in different spaces and times filling the voids in observation that a single researcher cannot address. In relation to the limitation of not addressing patients and families’ role in PR decisions, this study’s has shown that all persons play an active role in PR events. Therefore, next studies need to broaden the scope of the target population and have the capacity to be
flexible to collect data about all persons present in the scene while observing PR events. Importantly, to expand the realm of the persons interviewed seems crucial in order to compare how each participant’s perceptions and lived experience interplay with other participant’s in an interactive manner to embrace the completeness of PR interventions as relational events from all its angles.

**Policy implications**

In light of this study’s results it seems necessary to suggest policy modifications in different realms. In the following, modifications regarding the identified deficiencies in current policies are suggested:

In relation to HPs recruitment and allocation of human resources, the shown importance of the amount and quality of attributes and capitals of each HPs makes necessary that not only the number and professional category of HP is taking in consideration when planning for staffing. Likewise, the team functioning, as a whole, and not only the number of single members of such team should be considered when selecting HPs for working in IPPU.

In relation to allocation of resources and responsibilities among HPs, the hierarchical composition of the healthcare team leads that HPs that spent less time with patients concentrate higher amount of capitals (resources). This paradox needs to be balanced providing all HPs regardless their professional position with a more equitable amount and quality of resources so that PR do not easily become “the only means available”. Likewise, the unspecified differentiation between HPs responsible for deciding about PR and HPs responsible of implementing PR needs to be clarified, stating that there should not be such differentiation between “decision makers” and “decision executers”. This would help avoid transmission information gaps that may lead to errors on PR use as well as to increase accuracy on PR’s
accountability.

As far as legislation is concerned, lack of specific laws that regulate PR in IPPU need to be enacted. Laws should include a standardized PR legal term and definition, being important that these terms are neutrally defined with semantic correspondence between the term and its meaning. Legislation should also ensure that there is a separation of roles between those who order/execute PR and those who evaluate PR in order to increase neutrality on this evaluations and avoid conflict of interests. With this purpose, to include the figure of the ombudsman or judges as those in charge to assess the appropriateness of each PR, with patient’s capacity to contact them directly, seems of particular importance to protect patients’ rights and prevent legal insecurity. In relation to PR protocols, their effectiveness in guiding HPs decision making process need to be tested. In any case, PR protocols should not be focused on guidelines for the individual HP in a hypothetical PR event, but instead provide standards for working conditions and health care team organization systems.

Finally, in relation to PR recording methods it is advisable that not only HPs, but also patients and relatives become responsible for filling the records and protocols in order to include patients and relatives together with HPs as responsible for filling the records; regulations that standardize PR record page are also necessary to ensure that the data collected allow assessing whether PR has been used in compliance with human rights standards, and that such data are comparable between facilities.

Conclusion

This study has shown an ethnographic and phenomenological work that aimed to understand HPs’ decision-making process about PR use. Particularly, it has explored the
contextual factors, the underlying psychological process and the potential for improvement of PR protocols in guiding such decisions.

Based on the findings from the ethnographic work a theoretical model has emerged explaining that a PR event generates in a “contextual matrix”, within which HPs and patients interact through a net of forces whose unbalance may lead to PR use. To prevent this from happening, it has been recommended to organize the IPPU carefully considering the IPPUs’ physical environment and architecture design, a more equal distribution of resources among HPs so that all have resources to prevent using PR as the only means available, and to emphasize team work so that all HP use their capacity in the same direction to pull back patients from harmful to healthy behaviors.

Drawing from the findings abstracted from the phenomenological approach, a theoretical model has emerged showing that PR decisions are personal (individual-psychological and collective-social) processes compounded by a set of tasks in which forming a reference framework to evaluate what it is observed and developing a system of receiving and transmitting information is essential in order to be able to make decisions about PR. To improve HPs’ capacity to make decisions about PR it has been recommended to educate HPs providing a theoretical basis and time to learn from their own and other HPs’ experiences. Likewise, training about PR use should not address each HP individually but the team as a whole also improving the transmission information systems between HPs to increase the accuracy of the basic input to make PR decisions: information. In addition, HPs experience about PR decisions is intense and may cause trauma and moral conflict. In this sense, not only education but institutional and psychological support seem necessary to help HP learn how to deal with and overcome such difficult situations as PR events.
Finally, the analysis of PR protocols in light of participants’ perceptions and the observed reality of PR events have shown that protocols are not the single element that HPs take into account. Also, PR protocols lack the necessary flexibility to adjust to the variable nature of patients’ emotional condition and may be more useful to review PR than to guide a priori PR decisions.

In short, PR decisions are context dependent, culturally shaped, interpersonal, emotionally intense and morally charged. Hence, policy and guidelines may need to address the complex reality that embrace PR events and the particularities of PR use with minors.
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Appendix A

Graphic representation of tentative theoretical framework

Figure 1

*Model: Tentative Theoretical Framework*
**Stage 1: Orientation to self**

This phase represents how we are as children, when persons only care for themselves in order to ensure survival. According to Gilligan, the moral sense is derived from our experience of human relationships. This starts within the parent/child relationship, and this experience allows us to develop ideas about care and justice (Harbison, 1992). Hence, my moral development started within my family.

I was born in Madrid (Spain) 32 years ago within a middle class family. My mother was a primary school teacher and my father was a lawyer. Both of them were deeply religious and believed in a unified family and education as the pillars for our development as moral selves. Their priority as parents was to raise my siblings and me so that we become responsible persons of others and ourselves.

At this point, it is important to mention that I am the youngest of 3 children. My sister is the oldest, four years later my brother was born, and I came one year after him. The relevance of this stems from the experience of inequality I had as, obviously, I was a girl and my brother was a boy. According to Gilligan, the gender perspective is crucial as girls have a different experience than boys, and so different understanding of self and society. Hence, girls have different ways of viewing moral issues than boys (Harbison, 1992). I believe my relation with my brother struck me, as I could not understand why we experienced relationships differently, and I also felt a sense of vulnerability and inferiority related to him. Gilligan’s theory brings light into this as she states that relationships are experienced differently from women and men: while masculinity is defined through separation, femininity is defined through attachment. This may
shape the moral sense in that for male responsibility means not doing what he wants because he is thinking of others; while for females, responsibility means doing what others are counting on her to do regardless of what she herself wants (Gilligan, 1982). I believe this struggle to speak for myself started at that time and it’s still not finished. The deconstruction of icon of feminine goodness as the women who acts and speaks only for others started when I realized that rendering myself selfless was incompatible with my way of being.

I believe at the age of 16 I faced the psychological dilemma (Gilligan, 1982) of thinking that saying what I was feeling and thinking would mean that no one would want to be with me, and at the same time, if I didn’t say what I was thinking and feeling I would be all alone. Maybe that’s the reason why I was so introverted and no one would know what was happening to me: I had to choose not to speak and so fitting in the ideal of feminine goodness or to keep my own voice, despite it was dissonant. In order to keep my voice I had to leave my catholic nun school so I went to a public high school where I felt the social pressure was relieved from me. Importantly, in this school I met a philosophy teacher who legitimated my way of thinking and helped me to understand that I was fine, I simply didn’t fit. I had to answer to myself what Gilligan question to every women: “if it is good to be responsible to people, to act in connection with others and to be careful rather than careless about people’s feelings and thoughts, empathic and attentive to their lives, why is it “selfish” to respond to myself, against the force of my self-condemnation, self-abnegation and self-betrayal” (Gilligan, 1982, p. 7). It certainly took me a while and quite an effort and suffering to realize that my voice sound “different” within a world that was preoccupied with separation and obsessed with creating and maintaining boundaries between people; that connection and responsibility to myself and others was the way to face the conflict between my own survival and other’s survival and wellbeing.
Stage 2: morality of care

This stage is characterized for a maternal morality that seeks to ensure care for the dependent and unequal. Good is equated with caring for others (Baxter & Bobling, 2007).

I can’t say precisely when I transitioned to this moral stage given that as far as I remember, I always wanted to be a nurse; I liked the idea of caring. Nevertheless, I believe that after the high school period I more firmly placed myself in relation to the world (Gilligan, 1982) and I chose to help others through nursing. In fact, I still feel that Nursing is not simply something that I do, but something that constitutes me. It is not just a graduate program that I have studied, but a knowledge that has been developing inside me way before I enrolled Nursing College, and that was, by no means, completed once I was graduated. In fact, becoming a nurse is still a living process that emerges from the root questions of my existence and helps me to find answers to make it more meaningful. Given that according to Gilligan morality is a way of living, I would say that my moral voice is nursing.

As I have mentioned, this moral voice has evolved throughout my life. In particular, I believe that a number of personal experiences of illness and loss of cherished relatives have made me aware that life and death can co-exist within one’s own reality; that health and illness are constantly combined through our lifetimes, bringing along experiences which “form” us in such a manner that they “reform” us. The dynamic process of farewell and welcome which I have been through during these years has constantly demanded and, at the same time, created the need to search for a better understanding of humanity and its suffering. In this process, I got in contact with ill people who allowed me to witness that the only action that always prevails, above all others, is caring, as it is an inherent human behaviour present throughout our lives. I became so fascinated about this inner sense to connect with other people’s needs as well as your
own, that this impelled me go beyond the understanding of sheer health conditions towards a more complex and contextual approach embraced by Nursing. In Gilligan’s words, my “ideal of care is thus an activity of relationship, of seeing and responding to need, taking care of the world by sustaining the web of connection so that no one is left alone” (Gilligan, 1982, p. 56).

Nevertheless, the reality I faced when I started working in the hospital was different from my ideal of care. I had the feeling of disconnection from other professionals, especially physicians that lead me to struggle to see myself and so nursing as “worthwhile”. I perceived that my professional development was not seen as worthy and within the institutional constraints I found difficult to act on my own behalf. I felt frustrated of having to care for others while not being able to do it on the way I felt I had to do it as a nurse.

This uneasy feeling was especially notorious when I started working within a mental health unit. There I would see the hierarchy in the decision making process referred to the patients, in which nurses were not free to act as moral agents (Millete, 1994). There was an unequal dialogue between justice orientation and care orientation, between these two different ways of organizing the moral judgment and so the way to treat the patients. I noticed that the notion of fairness allowed the use of violence (physical restraints-PR-) and it would be fair to restraint a patient if her/his behavior was disruptive. However, within myself I had the relational ethic of care that prevent me from being able to emotionally detach from the restrained patient so I suffer for her/him also. It was also painful for me and for other nurses. I believe this relation with the patient generates a sense of empathy that impedes a person to use violence against other without hurting herself, even though doing so might be considered as fair or appropriate. Without being fully aware I almost reached a point of moral nihilism (Gilligan, 1982) where I perceived that nurses cut off their feeling toward the patient and did not care. Maybe the construction of
care as weakness, where only nurses cared about relationships without having choice, made the use of PR a test of strength. And what is more, this lack of autonomy made nurses excuse ourselves from the responsibility that the decision of using PR with the patients entailed.

At this point, I started to risk caring as I felt I had to do it, so my conception of morality started to change towards a new understanding of the interconnection of others and myself. While I felt the vulnerability to adverse judgments by others, I also realized that goodness does not mean obligation and sacrifice; if I was frustrated I could not take care of others, so I thought there must be a way to combine care and personal integrity, compassion and personal autonomy (Baxter & Roblin, 2007). I thought there should be a way of caring so that no one would be hurt.

Stage 3: Morality of nonviolence

This phase’s main characteristic is the heightened understanding of choice between own needs and care for others. Care becomes a self-chosen principle of a judgment that remains psychological in its concern with relationships and response but becomes universal in its condemnation of exploitation and hurt.

As I have introduced in the former section, my transition towards the morality of nonviolence started since first time I was in contact with mental health. Then, I became very concern of the living conditions of persons with mental disabilities as well as the violence cycle by which people with mental disabilities are affected. This experience was especially moving because I could witness how children were treated and, I was also involved in this practice. In my position as a mental health nurse I could witness that most people with mental diseases have a story of oppression and violations but the limitations of the different areas of knowledge I have been trained in prevent us from actually helping these people to overcome their mental issues. Particularly revealing was a Course I took in Mental Health Law and Human Rights in India,
where I realized that even the fairest law was incapable to stop the stigma and discrimination that mental health patients suffer. This meant a change in my morality, replacing the hierarchy of rights with the healing power of the crux of nursing: the nurse-patient relationship (Peplau, 1952).

Due to these impressions, I realized that stopping the violence cycle in which persons with mental disabilities are included is a great responsibility for mental health professionals, especially for mental health nurses, but on my work I was doing the opposite. On this regard, I believe that nurses have the key to help the patient to grow through a therapeutic relation that enables these persons to achieve their highest potential. However, far from providing a healing interaction, sometimes nurses still use compulsory measures with patients (such PR) while taking care of them as some punishment measures are still considered treatment with mental patients. As far as this mean of treatment is concern, throughout my professional experience I could confirm that these measures are counter productive and only makes mental patients to react against them with violence as well, perpetuating the mentioned cycle and preventing them to fully develop their personalities. Due to this, I decided to quit my job and devote my professional career to research how improve the well-being of mental patients, in particular how to stop using PR.

This conviction made me think over new approaches in order to find an alternative to those treatments that still use violent means, such as PR, seclusion, enforced medication and so on. It was at this point that I thought of nonviolence as a suitable theoretical tool to be applied to mental health. However, the bridge between this conviction and my professional activity is not build yet, and it is with this purpose that I am currently doing a PhD in Nursing to research nurses’ experience while deciding to use of PR in mental health.
Table 1

*Research plan*

<table>
<thead>
<tr>
<th>Phenomenon</th>
<th>Research questions</th>
<th>Epistemology: Gilligan</th>
<th>Methodology</th>
<th>Methods</th>
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<tbody>
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<td>Experienced moral decision</td>
<td>RQ 1</td>
<td>Morality from experience</td>
<td>Phenomenology</td>
<td>In-depth interviews</td>
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<td>Situated in and affected by context</td>
<td>RQ 2</td>
<td>Contextual ontology</td>
<td>Ethnography</td>
<td>Participant observation</td>
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<td>RQ 1 &amp; RQ2</td>
<td>Relational ontology</td>
<td>Phenomenology/ Ethnography</td>
<td>In-depth interviews Participant observation</td>
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<td>Regulated protocols by PR</td>
<td>RQ3</td>
<td>Conflict: norms vs. personal perspective</td>
<td>Phenomenology/ Ethnography</td>
<td>In-depth interviews Participant observation</td>
</tr>
</tbody>
</table>
Appendix D

Informed Consent

HOJA DE INFORMACIÓN DEL ESTUDIO

TÍTULO DEL ESTUDIO: Desarrollo de un modelo descriptivo del proceso de toma de decisiones sobre el uso de las contenciones físicas en unidades pediátricas de psiquiatría.

INVESTIGADOR PRINCIPAL: Elvira Pértega Andía

TELÉFONO DE CONTACTO: 693568712

CENTRO DE REFERENCIA: Hospital

INTRODUCCIÓN

Nos dirigimos a usted para informarle sobre un estudio de investigación en el que se le invita a participar. El estudio ha sido aprobado por el Comité Ético de Investigación Clínica del Hospital.

Nuestra intención es que usted reciba la información correcta y suficiente para que pueda juzgar si quiere o no participar en este estudio. Para ello, puede usted leer esta hoja informativa, y en caso de que, tras la explicación, le surjan dudas o preguntas, nosotras podremos aclarárselas. Además, puede consultar con las personas que considere oportuno.

PARTICIPACIÓN VOLUNTARIA

Debe saber que su participación en este estudio es voluntaria y que puede decidir no participar o cambiar su decisión y retirar el consentimiento en cualquier momento, sin que eso suponga ninguna consecuencia para usted.

DESCRIPTIÓN GENERAL DEL ESTUDIO

El objetivo general de este estudio es generar un modelo descriptivo de las decisiones de usar la contención física que permita explicar cómo los profesionales sanitarios cumplen con los requisitos del protocolo de actuación en las situaciones que puedan requerir el uso de la contención física.

PROCEDIMIENTO DE ESTUDIO

Se llevará a cabo una entrevista en el Hospital

Se realizará la misma, a los profesionales sanitarios que trabajan en la Unidad de Psiquiatría de ____del Hospital______.
Para poder analizar las aportaciones se grabarán las entrevistas, tras su transcripción serán borradas. Se mantendrá rigurosamente el anonimato en la elaboración de los informes

**BENEFICIOS Y RIESGOS DERIVADOS DE SU PARTICIPACIÓN EN EL ESTUDIO**

Es posible que no obtenga ningún beneficio directo en este estudio. Al igual que no se deriva ningún riesgo de su participación.

El interés de esta entrevista es conocer su experiencia en situaciones en las que haya sido preciso decidir usar la contención física.

**CONFIDENCIALIDAD**

El tratamiento, la comunicación y la cesión de los datos de carácter personal de todos los sujetos participantes se ajustará a lo dispuesto en la Ley Orgánica 15/1999, de 13 de diciembre de protección de datos de carácter personal.

De acuerdo a lo que establece la legislación mencionada, usted puede ejercer los derechos de acceso, modificación, oposición y cancelación de datos, para lo cual deberá dirigirse al investigador principal del estudio.

Asimismo, de acuerdo a la legislación vigente Ley 14/2007, sus datos serán tratados con absoluta confidencialidad, de manera que será imposible asociarle a usted con los resultados del estudio. Solamente el investigador principal del estudio tendrá acceso a sus datos personales. Su nombre e iniciales no aparecerán en ningún documento del estudio, siendo sustituidos por un código. El código que figure en el documento será guardado por el investigador principal, para evitar que terceras personas tengan acceso a los datos. Sus datos no serán accesibles para otras personas que participen en la investigación.

Nombre del Investigador Principal: Elvira Pértega Andía
E-mail: epa238@nyu.edu
Teléfono de contacto: 693568712
CONSENTIMIENTO INFORMADO PARA PARTICIPAR EN EL ESTUDIO

TÍTULO DEL ESTUDIO: Desarrollo de un modelo descriptivo del proceso de toma de decisiones sobre el uso de las contenciones físicas en unidades pediátricas de psiquiatría.

INVESTIGADOR PRINCIPAL: Elvira Pérga Andía

TELÉFONO DE CONTACTO: 693568712

CENTRO DE REFERENCIA: Hospital ______

Para poder conocer la experiencia vivida de los profesionales en situaciones en las que haya sido preciso decidir usar la contención física, se han seleccionado profesionales sanitarios para su participación en entrevistas. Las entrevistas no durarán más de dos horas, los datos serán grabados para su posterior transcripción y análisis, por este motivo es necesario el consentimiento de las personas que son entrevistadas. Las grabaciones serán posteriormente borradas y se mantendrá el anonimato en la elaboración de los informes.

Yo (nombre y apellidos) ....................................................................................................

- He leído la hoja de información que se me ha entregado
- He podido hacer preguntas sobre la entrevista
- He recibido suficiente información sobre la entrevista
- He hablado con:...........................................................................................................

- Comprendo que mi participación es voluntaria
- Comprendo que puedo dejar la entrevista:
  1º Cuando quiera
  2º Sin tener que dar explicaciones
  3º Sin que esto repercute sobre mi trabajo

Por consiguiente:

- Presto libremente mi conformidad para participar en el estudio y doy mi consentimiento para el acceso y utilización de mis datos en las condiciones detalladas en la hoja de información.

Firma del participante: 
Fecha: 

Firma: 
Fecha: 

En caso de revocación del Consentimiento:
Fecha..................................................... Firma......................................................
Appendix E

Interview Protocol

**Debriefing statement:**

Thank you very much for accepting to be interviewed about your experience at work in an inpatient psychiatric unit. Before we start I’d like to give you some information about myself and about what involves participating in this interview.

I am a mental health nurse, and I am currently a PhD candidate at NYU College of Nursing. This interview is part of the research process for my dissertation. Nevertheless and, more importantly, your contribution will help me understand better how HPs’ experience situations that led to using physical restraints with psychiatric patients when become physically agitated. I am aware that worldwide, the topic of PR use is controversial with important legal and ethical concerns for nurses. On this regard, I’d like to make clear that I am just interested in how you experienced these type of situations.

Given the importance of the information you will share with me, your interview will be audio-taped and then transcribed. This will help me to more accurately record and analyze what you are saying. If you are interested, you may review the tape, transcription and analysis at any time you request these materials. The confidentiality of your records will be strictly maintained as your name and the place where you work will not be revealed; also, the materials from your interview will be only shared with the research team.

Your participation will involve 5 minutes to complete a brief demographic questionnaire and an hour interview. During the interview I may take notes to help me keep track of what you are saying and I may interrupt you if I need to go back to a question or I need further clarification on
any aspect. Likewise, feel free to ask me any questions or doubts you may have, but I’d appreciate if you could do it now or after the interview.

**Please fill this brief questionnaire:**

Gender____

Age____

Education level____

Year of graduation____

Credentials _______

Years of work experience____

Years of work experience in psychiatric/mental health_____

Current Job position _______

Years of work experience in your current psychiatric unit_____

Training in behavior management/de-escalation techniques ___ Yes___ No__ If yes, what type? ____

**Interview:**

Thank you for completing the questionnaire. I’d like to start asking you to think about the last time you were involved in a situation that led to using physical restraints with a patient who was agitated. You can take some time to recall this situation and try to describe it.

Could you walk me through the experience from the beginning to the end? (describe the chain of events)

   How did the situation start?

   What time of the day it was?

   Who were present at that time?
Where in the unit this happened?

How would you describe the environment at that moment?

What was this experience like for you?

How did you feel when you first saw the situation/ that situation occurred?

What were you thinking when you first saw the situation?

How did you react?

What did you do?

How was that decision made?

What were you thinking (just prior do administering PR)?

What options were considered to address this situation?

What guided you to know what to do?

Who made the decision to use PR?

How was that decision implemented?

What did the other staff members do?

What was challenging about this PR?

What worked well about this PR?

Would you consider that the PR use in this situation was appropriate?

What elements do you take into account to evaluate this PR intervention?

How did you know it was used as a last resort and that was the least restrictive available alternative?

What did you learn from this experience?

How do you think this experience may influence your reaction next time a similar situation occurs?
What other resources/skills do you consider could be helpful to tackle a similar situation?

To what extent did you find the PR protocol useful in order to guide your PR decision?

How do you feel the PR protocol meets the reality you face when deciding about PR?

How comfortable do you feel in following the PR protocol guidelines?
Appendix F

Interviews Procedure

<table>
<thead>
<tr>
<th>ASPECT</th>
<th>GENERAL HOSPITAL U1</th>
<th>PEDIATRIC HOSPITAL U2</th>
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</tr>
<tr>
<td>RANGE OF EXPERIENCE</td>
<td>14 years- 3 months</td>
<td>14 years- 1 month</td>
</tr>
</tbody>
</table>
Appendix G

Observation guide

First part: Physical restraint intervention description

Date__________
Time__________

1. Place
   a. Where the PR intervention started, continued and ended?

2. Receptor
   a. Who received the PR intervention?
   b. What are the receptors characteristics?

3. Provider
   a. Who decided to use PR?
   b. Who exacted the PR use?
   c. Who signed the PR order?

4. Procedure
   a. What were the stages of the PR use?
   b. How PR was implemented/avoided?
   c. What other alternatives were used?
   d. How long it took?

5. Materials
   a. What equipment, methods or materials were used?

6. Intensity
a. What PR technique was used?

b. How intense the PR was?

7. Programming

a. Did the process follow the PR protocol?

**Second part: Factors affecting PR intervention**

- Children’s characteristics
  - Demographics
  - Psychiatric diagnosis
  - Living conditions/family history
  - Perceptions about PR use

- The family
  - Level of involvement
  - Functioning
  - Attitudes
  - Management of family situation
    - Fostering family contact/Avoiding family contact
    - Hesitation/Anxiety in children and HP
    - Surrogate family role

- Staff
  - Organization chart
    - Directive team
    - “HPs” team
      - Week team
• Weekend team
• Night team

• Team functioning
  • Decision makers
    • Director
    • HPs
  • Definition of roles/function
  • Level of cohesion between shifts
  • Peer support
  • Conflicts between HPs

• Demographics:
  • Gender
  • Age range

• Experience

• Training

• Level of satisfaction

• Personal style
  • Beliefs about children
  • Perceptions about PR

• Setting
  • Location
  • Space/Layout
  • Material
- Milieu
  - Distress level
    - Wall/Doors/keys
    - Sound volume
    - Observation/Privacy
  - Crisis protocol
  - Planning
- Organization
  - Staffing
  - Philosophical model
- Rules
  - What rules
    - Explicit/Implicit
  - Who makes the rules
  - Who/How implement the rules
  - Who/How react to the rules
    - HPs
    - Children
  - Consequences of the rules
    - HPs
    - Children
- Timing
  - Activities
• Psychotherapy
  - Behavioral management
  - Triggers of PR
Appendix H

Modified observation guide submitted to IRB for approval

OBSERVATION GUIDE AMENDMENT

This is an addendum to the “observation guide” already submitted to the NYU IRB on May 20th, 2014. The rationale for this addendum is that new topics for observation have arisen during the participant observation as well as new ways to observe. Particularly, this addendum refers to observation via cameras in the unit. As the unit is a psychiatric unit, it has cameras in patient’s rooms as well as corridors and common areas. These cameras are part of the environment and patients and families are aware that these cameras are part of the unit environment. I have already consulted medical and nursing staff in charge and they have agreed that I can do part of my observation in the unit via these cameras. Importantly, these observations do not focus on identified patients or relatives; my research focuses on health professionals and their activities.

| Site | | | |
| Date | | | |
| Arrival time | | | |
| Leaving time | | | |
| Staffing | | | |
| Patients per bed | | | |
| Incidents book | | | |
| Bulletin board announcements | | | |
| Other information | | | |
| Subjective comments | | | |

DAILY ACTIVITIES

<table>
<thead>
<tr>
<th>Time Space</th>
<th>Activity</th>
<th>Actors</th>
<th>Context</th>
<th>Verbal behavior interactions</th>
<th>Physical behavior gestures</th>
<th>Goal/Outcome</th>
<th>Observer Position</th>
</tr>
</thead>
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</table>
INTERPERSONAL INTERACTIONS

<table>
<thead>
<tr>
<th>Time</th>
<th>Situation</th>
<th>Actors</th>
<th>Verbal behavior</th>
<th>Physical behavior</th>
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</table>

PHYSICAL RESTRAINT DECISION (start-maintain-remove)

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Observed patient’s behavior</th>
<th>HP’s 1st comment/reaction</th>
<th>Other elements considered</th>
<th>HP’s description of patient’s behavior</th>
<th>HP’s pattern recognition</th>
<th>HP’s judgment</th>
<th>HP’s decision argumentation</th>
<th>Influences</th>
<th>Feelings</th>
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Narrative form:
SUSCEPTIBLE SITUATIONS FOR SECLUSION/PHYSICAL RERAINTS INTERVENTIONS

<table>
<thead>
<tr>
<th>Precipitant:</th>
<th>Influences:</th>
<th>Organization:</th>
<th>Previous alternatives used:</th>
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</table>

<table>
<thead>
<tr>
<th>Time (sequence)</th>
<th>Space and objects</th>
<th>Receiver Behavior</th>
<th>Provider Behavior</th>
<th>Other person behavior</th>
<th>Receiver language</th>
<th>Provider language</th>
<th>Other person language</th>
<th>Material</th>
<th>Intensity</th>
<th>Outcome</th>
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JUSTIFICACION

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<tr>
<th>Self-harm</th>
<th>Fall risk</th>
<th>Harm to others</th>
<th>Medical treatment</th>
<th>Furniture harm</th>
<th>Self-requested</th>
<th>Behavior program</th>
<th>Punishment</th>
<th>Control</th>
<th>Convenience</th>
<th>Agitation treatment</th>
<th>Other</th>
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Narrative form:

PHYSICAL SPACE DESCRIPTION
<table>
<thead>
<tr>
<th>Space</th>
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<tbody>
<tr>
<td>Wall</td>
<td></td>
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<tr>
<td>Personal Objects</td>
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<tr>
<td>Institution objects</td>
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<tr>
<td>Color</td>
<td></td>
</tr>
<tr>
<td>Shape</td>
<td></td>
</tr>
<tr>
<td>Words / Messages</td>
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</tr>
<tr>
<td>Pictures</td>
<td></td>
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<td>Doors</td>
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<td>Windows</td>
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</table>

**ACTORS DESCRIPTION**

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<tr>
<th>Appearance</th>
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<tbody>
<tr>
<td>Age</td>
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<td>Gender</td>
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<td>Height</td>
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<tr>
<td>Voice</td>
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</table>

**GLOSSARY OF TERMS:**

Observer position: How and where the observer is situated in relation to situation. This includes:

In situ: observer is situated within the activity that is being performed

Via camera: observer is situated outside the activity that is being performed and is observing
Space: the physical place or places
Actor: the people involved. This also includes
Appearance: Clothing, age, gender, physical appearance
Activity: a set of related acts people do. This includes:
Act: single actions that people do
Personal space: How close people stand to one another
Personnel and patient movement/activities: People who enter, leave, and spend time at the observation site
People who stand out: Identification of people who receive a lot of attention from others
People ignored: people who do not receive attention from others
Object: the physical things present
Time: the sequencing that takes place over time
Goal: the things people are trying to accomplish
Verbal behavior and interactions: Who speaks to whom and for how long; who initiates interaction; languages or dialects spoken; tone of voice. This also includes:
Feeling: the emotions felt & expressed
Opinions: beliefs or judgments
Thoughts: ideas or notions
Physical behavior and gestures: What people do, who does what, who interacts with whom, who is not interacting
Precipitant: prior event, why
Influences: environment, other people
Organization: how elements are related
Material: body parts and/or mechanical restraints material.
Intensity: speech-shout-isults, agitation- random hits- directed aggression, body-restraint belts.
Appendix I
Participant Observation Procedure

<table>
<thead>
<tr>
<th>ASPECT</th>
<th>GENERAL HOSPITAL U1</th>
<th>PEDIATRIC HOSPITAL U2</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME PERIOD</td>
<td>Mar- May- Oct’14</td>
<td>Apr- May- Oct’14</td>
</tr>
<tr>
<td>FIELD VISITS</td>
<td>31 TIMES</td>
<td>32 TIMES</td>
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<tr>
<td>FIELD TIME</td>
<td>452 HOURS</td>
<td>443 HOURS</td>
</tr>
<tr>
<td>MOMENTS OBSERVED Shifts</td>
<td>M-E-N</td>
<td>Shifts: M-E-N</td>
</tr>
<tr>
<td></td>
<td>Week/ Weekends</td>
<td>Week/ Weekends</td>
</tr>
<tr>
<td>Activities: visits, phone calls, belonging registrations, handover, meetings, leisure time, coffee…</td>
<td>Activities: discharges, hygiene, meals, school, workshops, psychiatrists round…</td>
<td></td>
</tr>
<tr>
<td>SPACES OBSERVED</td>
<td>Within unit vs. Outside unit</td>
<td>Within unit vs. Outside unit</td>
</tr>
<tr>
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<td>Private vs. Public</td>
<td>Private vs. Public</td>
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<td></td>
<td>Personal vs. Common</td>
<td>Personal vs. Common</td>
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</tbody>
</table>
Appendix J

Variable Elements Alive: Persons (Individual entities)
Appendix K

Persons: Collective entities
Appendix L

Regulatory Relations Inert-Inert: Content-Continent
Appendix M

Regulatory Relations: Transference Content-Containment
Appendix N

Theoretical Model: Factors

>Note: External box represents the IPPU; Parenthesis represent reference framework of each person; Red circle represent the patient, Green circle respresents HP-Nurse, Yellow circle represents HP-Psychiatrist; Orbit represents time and place in which it is expected each person will be according to IPPU’s norms (e= space; t = time); Arrows represent forces that each person exacts to each other affecting behavior mutually.
Appendix O

Theoretical Model: Decisions

Note: External box represents the IPPU; Parenthesis represent reference framework of each person; Red circle represent the patient, Green circle respsents HP-Nurse, Yellow circle represents HP-Psychiatrist; Orbit represents time and place in which it is expected each person will be according to IPPU’s norms (e= space; t = time); Arrows represent information flow: D arrows = Information Detection, T arrows= Information transmission.