Research Position Paper: Play in the Medical Environment

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Many theorists have proposed the importance of play on development and subsequent research has helped support a wide range of these ideas. Based on the work of prominent theorists such as Freud, Piaget, Vygotsky, and Parten, play can be understood as a context in which children gain understanding of the world around them and their experiences, learn to socialize, and manage emotions and conflicting societal pressures (Frost et al., 2012). Additionally, play, including big body play, is understood to have numerous positive impacts on children's physical development, communication skills, self-regulation, and creativity (Carlson, 2011). Thus, it appears that play is essential to the normal development, growth, and psychosocial well-being of children (Frost et al., 2012). Given the numerous benefits of play, it is crucial to understand its necessity in the medical environment where children often face heightened levels of stress and anxiety which pose risks to positive developmental outcomes (Li et al., 2016).

This paper will delve into theory and research that provide support for the use of play-based interventions in the medical environment. These play-based interventions will primarily include developmentally appropriate preparation and medical play such as encouraging children to explore real and pretend medical equipment in play and providing opportunities for children to pretend to conduct medical procedures. However, these play-based interventions will also include the use of distraction play such as blowing bubbles and using puppets. In this paper, the medical environment is defined as any place where children, both in-patient and out-patient, encounter doctors, nurses, and other health care professionals for treatment. This definition is intentionally broad to include inpatient hospitalized children, those undergoing outpatient day

surgery, as well as children receiving medical treatments outpatient due to the stress inducing nature of these environments. By introducing research on the impacts of play in the medical environment, the goal is that the reader will gain understanding that play should be incorporated in diverse medical settings to promote optimal developmental outcomes for the children they serve.

Among the theories that have been used to support the use of play in the medical environment, Freud's psychoanalytic theory has been particularly influential. According to Freud, all individuals are born with innate drives that form what he called the id, which seeks immediate satisfaction (Frost et al., 2012). However, Freud believed that society places pressure on how and when individuals can satisfy their internal drives leading to an internalization of societal demands creating an individual's superego (Frost et al., 2012). As individuals are faced with the demands of their id and the restraints of their superego, Freud proposed that a person's ego develops to balance these conflicting structures and to shape their development (Frost et al., 2012). Play becomes crucial to this theory in that is viewed as a means that allows children to express the demands of their id through fantasy and pretend in a context that does not have significant societal limitations (Frost et al., 2012). In this way, play is therapeutic and helps promote normal development since imbalances between the id, ego, and superego can lead to psychological issues if not properly managed or acted upon (Frost et al., 2012). In the medical environment this is especially important because children are faced with many limitations that often conflict their innate drives. For instance, a child in the medical environment may face unwanted treatments, unfamiliar settings, and separation from caregivers among other limitations that conflict with their internal drives for safety and security. Applying the psychoanalytic theory, play provides a route for children in medical environments to express their drives symbolically

leading to overall emotional and psychosocial well-being (Frost et al., 2012). In addition, it allows others a way to understand the stressors a child is facing (Frost et al., 2012).

In addition to theory which has provided support for the use of play in the medical setting, research has shown that play has significant impacts on patient outcomes when utilized in the medical environment. One such study was conducted by William et al. (2007) on children aged 7-12 receiving day surgery to determine the efficacy of play based interventions. In this study, results showed that the baseline anxiety levels of all children regardless of if given a play intervention or not, had high levels of anxiety pre-operatively (William et al., 2007). This is unsurprising since anxiety and worries are expected when children are faced with medical encounters (William et al., 2007). However, the study also found that children who received a one-hour therapeutic play intervention one week prior to surgery had significantly lower anxiety levels and displayed fewer negative emotions both pre-and post- operatively than children who only received information preparation (William et al., 2007). It is important to note that the researchers considered the cognitive and psychosocial development of the children receiving the play intervention when creating it to ensure that it would be most effective in meeting the children's play needs and addressing their potential concerns (William et al., 2007). Thus, in this study, all children who took part in the play intervention were shown a demonstration of anesthesia induction and how to take vital signs on a doll and given the opportunity pretend to demonstrate on the doll themselves and play with medical equipment (William et al., 2007).

Another study conducted by Li et al. (2016) has also provided support for the use of play in the medical environment. In this study, 154 hospitalized pediatric patients aged 3-12 received 30-minute daily play interventions, while 150 received only routine care (Li et al., 2016). The play

interventions were customized to the age, developmental abilities, physical condition and interests of the children who were part of the experimental group (Li et al., 2016). The study found that upon admission into the hospital, children aged 3-12 in both the play intervention group and control group showed high levels of anxiety (Li et al., 2016). Like in the previous study, this was expected as the medical environment can be perceived as threatening to children. However, the results showed that the children who received play interventions during their hospital stay exhibited significantly lower levels of anxiety than those in the control group (Li et al., 2016). Additionally, the children in the play intervention group exhibited less negative emotional manifestations of behavior according to the results of the Children's Emotional Manifestation Scale (Li et al., 2016). These findings help support the view that the medical environment can be a scary place for children, but that play may help limit the negative impacts of this environment.

Additionally, a study conducted by Grissom et al. (2015), provided support for the use of play interventions in the medical environment. In this study, Grissom et al. (2015) analyzed the correlation between the play interventions children aged 5-12 with central nervous system (CNS) tumors received and their need for sedation during treatments. Findings showed that children who received play-based procedural preparation and support showed a significant reduction in their need for sedation during cranial radiation therapy (Grissom et al., 2015). This is crucial because children with CNS tumors often need cranial radiation therapy, however, if continually sedated during treatment they are at increased risk for negative outcomes such as respiratory depression and central line infections (Grissom et al., 2015). Thus, it appears that the use of play in the medical environment also supports children's physical well-being.

Although some healthcare organizations are beginning to support an increase in the utilization of play in the medical environment, others have pointed out that play-based interventions may not be cost effective for hospitals as they require additional employees and resources (Li et al., 2016). However, in her study on the correlation between play interventions and the need for sedation in children undergoing treatments for (CNS) tumors, Grissom et al. appeared to show that this idea may be faulty (Grissom et al., 2015). For instance, Grissom et al. (2015) found that the cost of play interventions that reduced the need for sedation in children was less than the cost that would have been incurred if the child needed sedation. Thus, even if one is only concerned with financials, it appears that play based interventions are beneficial to the medical environment.

Given the benefits the play has both been proposed and found to have in the medical environment, it appears that these settings should utilize play to help patients reach the most positive developmental outcomes. This can be done by hiring professionals, such as Certified Child Life Specialists (CCLS), who are skilled in implementing play-based interventions (Grissom et al., 2015). Additionally, the CCLSs should ensure that the play interventions that implement are developmentally appropriate and consider the interests, abilities, and concerns of the patients (William et al., 2007). As shown in the research studies above, a single one hour play intervention, as well as daily 30-minute play interventions have been shown to impact children's psychosocial wellbeing (William et al., 2007; Li et al., 2016). Thus, CCLSs should use their professional judgement to determine the length and duration of play each child requires. Additionally, play can be enhanced in the medical environment by establishing more space, toys and equipment for play activities (Li et al., 2016).

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