

**Course:** **RADI1125-Introduction to Medical Radiations-Psychology**

**Topic:** **How knowledge of Piaget's and Erikson's theories can contribute to the clinical management of children in a radiography setting**

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## **Introduction**

This essay will describe Erikson's psychosocial stage theory and Piaget's theory of cognitive development. Piaget's preoperational stage along with Erikson's Initiative versus Guilt stage will be evaluated in further detail. Finally, how this knowledge can be used to help manage children in these stages that are from two to six years of age, in a radiographic clinic will be discussed.

## **Erikson's Stage Theory (Weiten 2004, pp439-441)**

Erikson's psychosocial stage theory comprises of eight stages. Progression to the next higher stage requires a psychosocial crisis to be solved successfully.

### **Trust vs. Mistrust, birth to one year old**

At birth to about one year old if the child has a safe and secure environment trust will develop. With a poor and unsafe environment mistrust develops.

### **Autonomy vs. Shame and Doubt, age 2-3yo**

As the child matures they become more independent and responsible for their own needs. If all goes well with self feeding, dressing and bathing autonomy develops. If unsuccessful the child becomes doubtful about their abilities and may be made to feel ashamed of their failure by their parents.

### **Initiative vs. Guilt, age 3-6yo**

As independence develops the child needs a certain amount of freedom to show initiative. If this is stifled by over control the child will feel guilt as they try to obey their parents.

### **Industry vs. Inferiority, age 6 to puberty**

This stage begins when children learn to function outside the home where there is less nurturing. Children who learn to function well in this new environment value achievement and take pride in accomplishment. Failure to succeed makes the child feel inferior.

The last four stages cover adolescence right through to old age. At this point there can be considerable overlap over the stages. Individuals can also retreat back a stage or two depending on what psychosocial crisis happens to them. The stage "Identity vs. Confusion" occurs around adolescence and the young adult is beginning to think about issues about who they are and where they are going.

Next is "Intimacy versus Isolation", where usually in early adulthood comes the decision about whether to share life with another or stay celibate. Middle adulthood often experiences the "Generatively versus Self-absorption" stage where the individual ponders about whether to contribute to a wider community good or not. In the final stage, "Integrity versus Despair", the question "Have I lived a full life or not?" is considered.

## **Piaget's Cognitive Stage Theory (Weiten 2004, pp441-443)**

Like Erikson's theory Piaget's theory of cognitive development involves stages. There are four in total and each is described below.

### **Sensorimotor, birth to two years**

At this stage the toddler and they is learning to control his body, starting from lifting their head to learning to walk. They also learn to differentiate themselves from objects, and realise that they can cause things to move. Object permanence, that it realising an object still exists even when out of view, is learnt.

**Preoperational, 2 to 7 years**

Children through this period improve in their use of mental images. Development of symbolic thought continues although Piaget emphasized shortcomings such as misunderstanding conservation of matter and the inability of mentally reversing or undoing actions.

**Concrete Operational, 7 to 11 years**

Children in this stage can do mental manipulation on real (ie concrete) objects and events. The skill reversibility allows them to undo actions. Decentration allows them to see the world and problems from another viewpoint besides their own. The development of reversibility leads to a decline of egocentrism and an improvement in understanding conservation of matter.

**Formal Operational, 11 to adulthood**

This stage sees the extension of operational thinking to abstract concepts. Many youngsters enjoy using this new skill and spend much time thinking about abstract concepts such as love, society and law. Children in this stage spend more time thinking about a problem compared to the earlier stages where problem solving involves trial and error.

***Initiative vs. Guilt, A Closer Look***

The crisis that begins in this stage is “more or less beset with fumbling and fear” (Erikson, 1975 p246). With initiative the child begins to try different things. With their boundless energy mistakes tend to be quickly overlooked and then forgotten. Confidence gained with new skills pushes aside any initial fumbling and fear and encourages more initiative.

For this stage it is useful to appreciate what is meant by initiative. Erikson (1975, p247) states that “(initiative) has an American, and industrial connotation. Yet, initiative is a necessary part of every act, and man needs a sense of initiative for whatever he learns and does, from fruit gathering to a system of enterprise.” Initiative is the new found freedom the child uses to try new things and to learn more about their surroundings. Rather than being resistant to independence and being defiant the child is happy to get away from mum and dad’s constant control and try things out for themselves.

Often with attempting new things comes failure and then guilt, especially if the child disobeyed the warnings of a parent. Erikson (1975, p247) points out that the danger of this stage is a sense of guilt over the goals contemplated and the acts initiated within the situation of new skills. He goes on to say this goes beyond the child’s internal limits of reason. Something goes awry and the child feels guilty.

According to Erikson (1975, p248) the child learns that while ready to overdo things, they will gradually develop moral responsibility, gain an insight into what others, society and peers expect from them. They get pleasure from playing with toys and sharing with other children. Caring for their younger sibling begins.

For this journey they become willing to learn from adult role models such as parents (especially of the same sex) and teachers for example. Erikson says that at no other time is the child “more ready to learn quickly and avidly”. Provided the child’s unsuccessful forays using initiative are not punished too severely their subsequent guilt will be minimal.

**Evaluating Erikson’s Theory**

Erikson’s theory’s is that it explains both continuity and change in personality development. Each stage progression is triggered by a crisis which stimulates personal growth. It takes into account of how early childhood experiences contribute to the making of the adult. Erikson’s work has proven valuable, it continues to guide a considerable amount of research today (Thomas, 2000 cited in Weiten, 2004 p440).

There are drawbacks with Erikson’s theory. It has relied on specific case studies which can be interpreted in a number of ways (Thomas, 2000 cited in Weiten, 2004 p440). The theory is not well suited to explaining the large variation in personalities between individuals as it is based on an optimised description of “typical” development patterns (Weiten, 2004 p440).

### ***Preoperational, A Closer Look***

Preoperational stage children understand only things that they can see. They also are concerned with only the world at face value.

Conservation of matter, whether it be of volume, mass, length or area, is not fully understood by the preoperational child. In one famous experiment Piaget demonstrated this shortcoming with two beakers of equal size and shape and pouring equal amounts of water into each. After the child agrees that each are equal the contents of one are poured into a tall beaker and the child is asked again. Children in the preoperational stage think that the taller beaker has more. As they lack the skill to mentally “undo” things, the idea of pouring the water back into the first beaker is unthought of. Irreversibility is another concept that yet to be grasped.

Preoperational children are egocentric. They think that everyone sees the world as they do. This also extends to non-living things. For example, they think the engines in “Thomas The Tank Engine” are alive like them and need to sleep. Egocentrism causes problems reversing left and right, Piaget (2000, p94) explains that even though the child knows how to use left and right relative to themselves being able to apply it to other things and people is some time away.

### **Evaluating Piaget’s Theory**

The advantage of Piaget’s theory is that it maps out growth and development in children in easy to understand stages. Even today, research that is generated from Piaget’s work, demonstrating its value. However this staging of growth tends to over simplify development. Many individuals do not fit Piaget’s template, and some can even occupy several stages simultaneously. Research has shown that the sequence of stages for most remains the same but the timing can vary considerably across cultures (Dasen, 1994; Rogoff, 1990 cited in Weiten 2004).

### ***Management of Children in a Radiographic Clinic***

Radiographers are well trained in anatomy and technical issues but psychosocial issues get relatively little attention. Gunderman (2000, p3) explains that staff who are sensitive to psychosocial issues that arise from illness will see a family’s persistent concern and questioning as an opportunity to involve them with their child’s medical care. Erikson recognises that the child identifies well with their parents, especially of the same sex. Gunderman also notes that children under the age of seven generally experience higher levels of psychosocial stress than older children .It is therefore beneficial to get the parents onside from the beginning as they will play a vital role in getting the child to understand, accept and undergo the required medical procedure.

Children are willing to learn as Erikson (1975, p250) stated children are “...willing to profit from teachers and to emulate ideal prototypes.” The “ideal prototype” can extend from their parents to the radiographer. McGee (2003, p471) wrote that “preschool children are constantly seeking approval”. They want to please their parents and adults with whom they deal with. McGee (2003) suggests that children should be praised and be told to feel proud of themselves for completing a medical procedure, thus giving them a sense of closure.

Piaget’s preoperational children can only comprehend concrete things. As they have no understanding of abstract concepts they do not understand what they cannot see including the inner workings of their bodies. They cannot readily make the connection between their health and the medical procedure. McGee (2003, p469) writes that they begin to protect their bodies and medical interventions are seen as an attack directed at them. Preoperational children cannot be expected to understand the reason or details for a procedure. McGee suggests that using a doll to demonstrate what the child needs to do for the procedure is beneficial. As long as explanations are kept simple enough and away from abstract concepts it would help the child understand how the procedure is going to be done. Erikson (1975 p249) states that at the “...the child is at no time more ready to learn quickly and avidly...”. A visit to the radiographic clinic could be a good opportunity for the “Initiative versus Guilt” child to learn and experience something new. The radiographer should try to take advantage of this characteristic and engage the child in the medical procedure.

McGee (2003, p471) suggests that children are more responsive when language is more directive. This allows the radiographer to distract or comfort them which increases the child’s participation and cooperation. Children tend to be direct and respond better when open ended questions are avoided (ie, “You need to...” in lei of “Could you...?”). Open ended questions or comments give the preschooler the impression they have a choice, and they will always take the path they want and not what is needed to complete the procedure.

Giving instructions regarding left and right can cause the child confusion. Piaget (2000, p94) explains that even though children will know their own left and right sides when translated to another person (or even the radiography machinery) they will not understand. Giving instructions with left and right should be avoided, instead pointing or gently touching the intended side would communicate directions better.

### ***Conclusion***

Management of children through to adolescents in the radiographic can be helped by having an understanding of Erikson's and Piaget's theories of development. As each stage has a mental template for each age range medical staff can modify their explanations of procedures accordingly. For preschoolers Erikson suggests they have a new confidence and initiative and desire and curiosity to learn. These qualities can be utilised to help them learn about the new environment of the radiography clinic and to make the experience more pleasant for all. Piaget's theory shows that preschoolers cannot understand abstract concepts and the best approach is to correct approach should be used; that is to avoid all references to abstract and unseen objects. Learning about Erikson and Piaget is an excellent start for learning about how to deal with children in the radiography clinic. Recent information is well worth researching too.

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