

The Educational Intervention Role of Nurses Caring For Children with Intellectual Disability (Studied on Nurses in Tehran)

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ABSTRACT

Paying attention to psychological issues of children with intellectual disability can reduce or even eliminate the issues from their personal and social lives and would eventually help to reduce the stress endured by this section of the society. In this respect, nurses who have a close relationship with such children as well as a key role in their education, are obviously pivotal. Therefore, the purpose of this study was to evaluate the educational intervention role of nurses caring for children with intellectual disability using experimental research method. Statistical samples of this study were 161 randomly selected nurses working with intellectually disabled children in 8 mental hospitals in Tehran. This research showed that the educational role of nurses working with intellectually disabled children in statistical population of all qualified nurse of Tehran is in a desirable condition. Regarding the influence rate, help in personality growth variable, help in social growth variable, prevent from personality decline, and providing for emotional needs had the most effect among educational roles of Tehran's nurses working with intellectually disabled children respectively.

KEYWORDS: Education, Educational Role, Nurse, Children with Intellectual Disability

INTRODUCTION

Along with modern scientific developments have come a revision toward various issues and problems. Despite significant medical developments, intellectual disability is still a universal issue around the world and people dealing with such shortcomings need more social attention. Intellectual disability is a general disorder in which the cognitive performance of the patient is below average and several deficiencies are observable before the child would become 18 years old. If we focus completely on cognition, a definition would be consisted of both intellectual function and functionality skills of the child in environment (Demirel, 2010). Some intellectually disabled children can be categorized as educable.

These children would learn harder and later compared to their normal counterparts. Moreover, they have trouble learning social concepts, participating in group activities, and respecting rules; since they have a low self-reliance, they are not able to function independently. Educable intellectually disabled children can learn to take care of themselves along with their general academic and scientific educations (Malek Pour & Nesayi Moghadam, 2014). This way, children can begin their development from their very first perception of their own deficiencies (Aral & Gursoy, 2007). Analyzing learning steps, scholars found out that learning steps of children with intellectual disability is not different from normal children. However, still they come through these steps slower. Moreover, these children also have some deficiencies in focusing their attention and remembering. Intellectually disabled children have a short-time attention and need more time to focus on a stimulus to keep their attention. They also having problems to keep their knowledge in their memories. More specifically, they have problems to transfer information from their short-term to long-term memory (Sucuoğlu, 2009, quoting from Shah Mive Isfahani, 2009). Such problems with short-term memory is rooted in ineffective learning processes and teaching methods. Without specific education, most educable children cannot learn the instructions that normal people can learn by themselves. Therefore, in teaching children with intellectual disability, it is of utmost importance that proper methods are used, a suitable environment is prepared so they never experience failure, and they get enough encouragements and support to be able to achieve success and increased self-reliance (Demirel, 2010). Apart from general education, children with intellectual disability also need proper teaching and nurturing regarding their social lives and personal matters. Since childhood education has a key role in forming one's character and considering the close relationship of children with intellectual disability with their nurses, the educational role of nurses and their influence, positive or negative, on such children cannot be ignored. Therefore, this research has been done to evaluate the educational intervention of nurses working with intellectually disabled children.

RESEARCH LITERATURE

Children are the basis of generational development and their birth can have a significant effect on the dynamism of any family. Parents and other family members should endure many changes to be able to cope with the new member. Birth of a disabled child can have a huge effect on his family and since disability and its related behaviors are relatively permanent, this issue can significantly affect the child's interactions with his siblings and parents (Robinson et al, 1998).

Birth of a child with intellectual disability can be a crisis which is deeply affecting relationships and interactions inside a family. In this regard, families with open, effective, and permanent relationships who are flexible in their roles can cope with such crises admirably (Scheffer, 1998).

Intellectual disability is defined as incomplete cerebral development which causes the person to be unable to adapt himself with his environment and would not be able to live without help of others (Tredgold, 2000). According to researches, people with intellectual disability form between 1 to 3 percent of each society (Sadok, 2003, quoted from Rostami, 2009). Birth of such children would bring stress to their family. Their parents are forced to deal with issues such as accepting their child's inability, tiredness resulted from extensive control and care, having less leisure time, and many other financial, medical, educational, and rehabilitation problems (Whiter, 2003).

Types of Intellectual Disability

Recently, a descriptive and functional categorization of intellectual disability has been developed by AAMR community. This categorization is consisted of mild, moderate, severe, and profound intellectual disability. Description of growth and developmental characteristics of cognitive, social, and employment skills of these people are also demonstrated in aforementioned four levels.

1. Preschool ages (birth to 5 years old)
 - Mild:* can develop social and relationship-making skills. Have the least sensory and physical disabilities and until later years, cannot be easily distinguished from normal children.
 - Moderate:* can talk and have a relationship and is able to achieve limited social understanding as well as moderate practical development. Can participate in self-care educations and is able to manage his tasks with appropriate supervision.
 - Severe:* low practical development and very little communication skills. Has problems with basic learnings (putting on clothes, etc.) and is not able to have social relationships.
 - Profound:* has obvious physical abnormalities, low physical abilities and needs close supervision.
2. School Ages (6 To 20 Years Old)
 - Mild:* can learn educational skills up until late adulthood or fifth grade. Can be led to social agreement and is educable.
 - Moderate:* can learn social and employment skills. Rarely develops more than 2nd grade and generally is not able to understand the subjects discussed in grades higher than that. May be able to travel alone to nearby, familiar places.
 - Severe:* can talk and learn communication skills. Can be taught basic health skills. Can benefit from systematic educations regarding routine tasks. Is not able to use professional educations.
 - Profound:* has mild physical development. May response positively to self-care teachings.
3. After School Ages (more than 21 years old)
 - Mild:* generally is able to achieve social and employment skills needed for self-sufficiency. May need guidance and supervision, especially when is under social and financial stress.
 - Moderate:* may be able to participate in simple activities and self-care over time, albeit with supervision. When is under mild social and financial stress, should receive guidance and supervision.
 - Severe:* with complete supervision may be able to participate in self-care. Can develop self-support skills in controlled environments and lowest level of commitment.
 - Profound:* have a mild physical and speech development. May be able to achieve lowest levels of self-care and needs around the clock care and supervision (Washington Publishing, 1969).

Categorization Based on Expectations and Acquired Knowledge

A. *Slow-Learning Children*

Since normal IQ is 100, and considering norms and teaching and nurturing purposes, such children won't be categorized as intellectually disabled and their IQ is generally between 75 and 90. They are a bit slow-learning and while they cannot perceive and describe complex concepts, they don't have problems with expressing adapting behaviors suited with their cultural and social environments.

They can study in normal schools and with more effort and perseverance as well as the attention and guidance of their teachers, can develop as any normal child in their educations.

B. Educable Children With Intellectual Disability

An educable intellectually disabled child cannot use normal educational programs in the school, due to his less than average growth and development. But, he can increase his learning capacity in three contexts:

- Minimum level of educability in educational subjects
- Sufficient educability in social adaptability to be able have an independent social life
- Achieving job skills adequacy in a way that can support himself after his youth either partially or completely.

The IQ of such children is generally between 50 and 75. Since they don't have any physical signs, they look mostly normal up until school years where they generally have learning problems. As these children don't have sufficient focus and also don't show much interest in intellectual and creative activities, they often called weakly talented students. These children have social adaptability and professional capabilities and with practice and repetition, are able to perform semi-skilled activities. When criticizing, their statements and reasoning are weak and if nurtured in a non-annoying emotional environment, have a submissive and adaptive character.

C. Trainable Children with Intellectual Disability

A trainable intellectually disabled child is a child that cannot be educated in educational developments, social adaptability for later independent life, and adaptability for performing job skills in youth.

A trainable child with intellectual disability can learn self-care skills such as putting clothes on, eating, and brushing. He can also learn social adaptability from his relationships with family and neighbors. He can also work at home or round the clock institutions and social workshops so he can be financially independent. Standard deviation of IQ test of a trainable intellectually disabled child is 3 or 4 points below norms and is generally between 25 and 50. Supportable intellectually disabled child is completely dependent due to his profound deficiencies and cannot learn self-care and social activities. Such children are not able to learn job skills and therefore cannot be financially independent and should always be under supervision of his warden. The IQ of these children is more than 5 points under standard deviation which makes it less than 25%. They generally have other mostly physical disabilities and need close supervision and care to be able to live (Daramadi, 1994).

METHODOLOGY

Based on the pre-determined purpose, this study can be called an applied research. On the other hand, since it investigates the reasons behind a certain phenomenon in Tehran's hospitals, it can also be called an experimental research. In this regard, statistical technic of structural equations was used which is basically evaluates the casual relationships between variables. Research population of this study was nurse society of Tehran.

Considering the characteristics of research population, cluster sampling method was used in which 300 questionnaires were distributed and 161 qualified responses were collected and analyzed. There are several methods to determine the sample size. Considering the limited number of population members of the research, this formula was used:

$$\text{Cochran's Formula} \quad n = \frac{z^2 pq}{d^2}$$

In which the confidence coefficient = 95%, $Z = 1.96$, $p=q=0.5$, population size (N) is limitless, and error amount (d) = 0.06.

Sample size resulted from above formula was 267.

A standard questionnaire designed by researcher was used for data collection. In order to determine its validity, several qualified nurses were consulted and their opinions were included. Therefore, the validity of questionnaire as a data collecting instrument was confirmed.

Reliability coefficient was used to determine questionnaire's reliability. The questionnaire was distributed among 39 members of the population as a pilot and Cronbach's Alpha coefficient was used to evaluate the reliability. The resulted Cronbach's alpha which was calculated using SPSS software was 0.845 which would confirm the reliability of the questionnaire.

Concept Model and Hypotheses

With research literature in mind, the concept model is recommended:

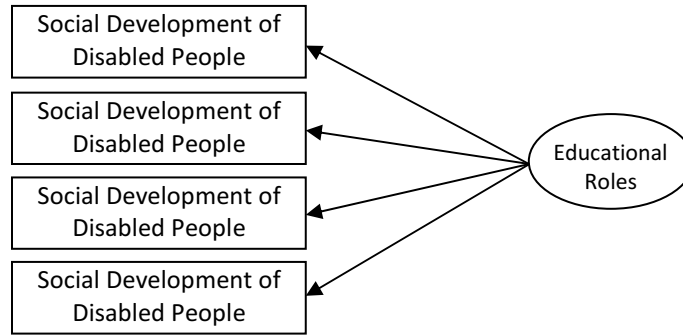


Figure 1. Concept model of the research

With this concept model, these hypotheses are presented.

Research Hypotheses

1. Help in social development among educational roles of nurses working with intellectually disabled children is in desirable condition.
2. Help in personality development among educational roles of nurses working with intellectually disabled children is in desirable condition.
3. Preventing from personality decline among educational roles of nurses working with intellectually disabled children is in desirable condition.
4. Providing emotional needs among educational roles of nurses working with intellectually disabled children is in desirable condition.

Analyzing Data

After determining measurement models, in order to evaluate the concept model and investigating the relationships between research variables or lack of them as well as assessing the conformity of observed with concept model, research hypotheses were also tested using structural equations model. Results are shown in Diagram 1.

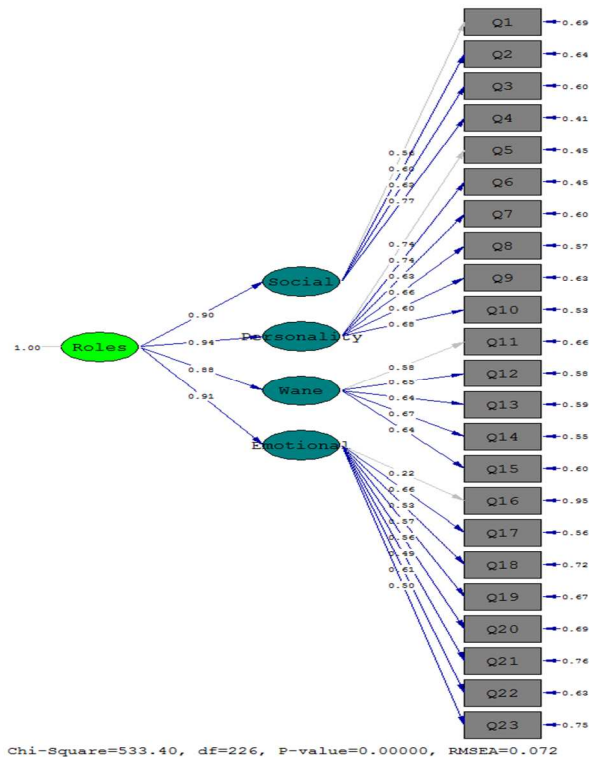
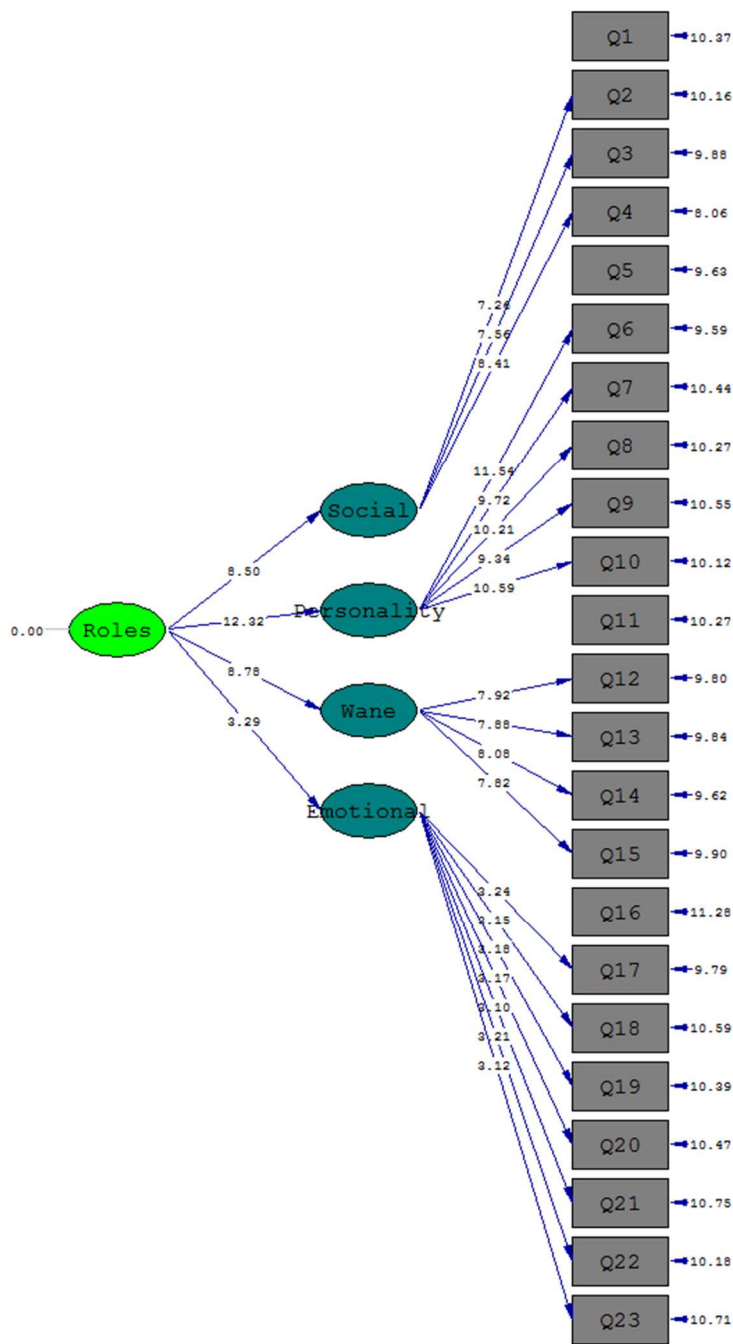


Diagram 1. Measuring general model and hypotheses results in standard mode



Chi-Square=533.40, df=226, P-value=0.00000, RMSEA=0.072

Diagram 2. Measuring general model and hypotheses results in significance mode

Table 4-4. Fitting indexes of the concept model of the research

X2/df	RMS EA	RMR	GFI	CFI	NNFI	IFI
2.36	0.072	0.021	0.94	0.99	0.95	0.97

Since our distribution is detected as normal (Kolmogorov–Smirnov test results), the correlation of variables were evaluated using Lisrel software. Moreover, to investigate the casual relationship between independent and dependent variables as well as confirming the model as a whole, route analysis model was applied using Lisrel 8.5

software. Lisrel results showed that the ratio between chi-square to degrees of freedom is less than 3 and other fitting indexes are also confirmed. Table 5-4 is summarized the significance coefficients and hypotheses results.

Table 5-4. Hypotheses results

Hypotheses	Standard	Significance	Result
Help in social development among educational roles of nurses working with intellectually disabled children is in desirable condition.	0.90	8.80	Confirmed
Help in personality development among educational roles of nurses working with intellectually disabled children is in desirable condition.	0.94	12.22	Confirmed
Preventing from personality decline among educational roles of nurses working with intellectually disabled children is in desirable condition.	0.88	8.78	Confirmed
Providing emotional needs among educational roles of nurses working with intellectually disabled children is in desirable condition.	0.91	3.29	Confirmed

Conclusion

As is mentioned before, this research is done to investigate the role of educational intervention for nurses working with intellectually disabled children in nurses' society of Tehran. In this study after assessing theoretical principles of research on nurses' roles, affecting elements were determined and a questionnaire was designed based on them which was distributed among Tehran's nurses. Collected data was analyzed using SPSS and Lisrel and the results showed that educational role of nurses working with intellectually disabled children is in a desirable condition.

1. Help in social development among educational roles of nurses working with intellectually disabled children is in desirable condition.
2. Help in personality development among educational roles of nurses working with intellectually disabled children is in desirable condition.
3. Preventing from personality decline among educational roles of nurses working with intellectually disabled children is in desirable condition.
4. Providing emotional needs among educational roles of nurses working with intellectually disabled children is in desirable condition.

Moreover, this research showed that regarding the influence rate, help in personality growth variable, help in social growth variable, prevent from personality decline, and providing for emotional needs had the most effect among educational roles of Tehran's nurses working with intellectually disabled children respectively.

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