

Making Life Better for Female Students With Motor Disabilities: Success in Saudi Arabia With a Selective Counselling Program

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Abstract

The impact of a Selective Counselling Program on the quality of psychological life of seven female university students with motor disabilities was determined. Subjects aged 18-25 (22.8 ± 1.24) were students at King Abdul Aziz University, Jeddah, Saudi Arabia. Ryff's Scales of Psychological Well-Being were used to observe the variations in the different levels of Psychological Well-Being of the students using the following protocol: Evaluation of the initial levels; evaluation after 6 weeks with 12 sessions (two sessions per week) of 60-90 minutes each, and follow-up evaluation two months later. Results were analyzed using the Wilcoxon Signed Ranks Test. The sample's quality of psychological life showed positive effects with improvements. This study emphasizes the need for Selective Counselling Programs for subjects with motor disabilities, to help them better integrate into society and improve their psychological quality of life.

Keywords: Programs; Selective Counseling; Disability; Quality of life; Psychological well-being.



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1. Introduction

1.1. Motor Disability

The term "motor disability" refers to a variety of impairments or limitations to movement, which occurs when there is a problem in the person's body that does not allow him/her to move freely and thus also restricts activity. This health condition affects the variable interactions between personal and environmental components (WHO, 2017). The many kinds of motor disabilities range from mild to severe, the last also being called a "handicap", which in many cases has developed from infancy or birth and is characterized by physical and social limitations due to chronic anatomic or functional irregularities (Davis and Gandy, 1990).

People perform the processes of reasoning, looking for solutions to problems and planning diverse activities mentally using several functions collectively called Executive Functions (EFs) or Cognitive Control (Diamond, 2013; Rahimi-Golkhandan *et al.*, 2014). Three aspects of EFs allow us to dominate our behavior, thinking and/or emotions in a specific situation to do what is most convenient for us. This is Self Control, i.e. the ability to control impulses so logic is imposed on thoughtless actions and is one of aspects of EFs (Wilson *et al.*, 2012). The second aspect of EF is Working Memory, which is related to the use information retained in our brain for mental work. The third aspect, Cognitive Flexibility, refers to the ability to alter previous plans in order to act under new conditions. It is difficult for people with motor disabilities who have difficulty responding to a task with speed and accuracy to use EFs. If their visuo-spatial and visuo-sensory processing is impaired as well as their tactile and kinesthetic perception, their mental health will be affected (Kanellakis, 2010), as will their Psychological Well-Being (Kozioł *et al.*, 2011).

In general, people with motor disabilities have lower self-esteem and less self-confidence as their physical limitations make them suffer anxiety, depression or substance abuse (Counselling Directory, 2017). These impairments and limitations affect not only a subject but also his/her family, friends, colleagues and professors (Avolio *et al.*, 2013; Leonard *et al.*, 2015; Wehmeier *et al.*, 2010).

1.2. Counselling for Disabilities

Motor disability has long been studied by neuroscientists, but notably this area has not been sufficiently explored by psychologists, though fortunately, this has been changing over recent time (Rosenbaum, 2005; von, 2004). Counselling Psychology is a profession that originated in the U.S.A. to help hundreds of thousands of ex-military Second War World veterans with disabilities by giving them Vocational Rehabilitation through educational programs. People with disabilities do not have equal opportunities for working, studying or participating in leisure or sports activities compared with those without disabilities. In addition, like other minority groups they suffer from a lack of inclusion in and respect by society. That is, they suffer from social discrimination that has to be taken into account in any Counselling Programs to better their situation (Counselling Directory, 2017).

Research in Counselling Psychology has a crucial function in strengthening the efforts of furthering social justice in dominant societies by making policies to guarantee a fair distribution of resources and services for the

well-being of people with disabilities (Mpofu and Conyers, 2004). One important goal for Counselling Psychologists is to help people with disabilities to empower themselves in such a way that they can express themselves using their own criteria or ideas for countering the judgment or rejection from non-disabled people, behaving that way either unconsciously or consciously. The phrase “Nothing About Us Without Us” summarizes this argument (Kanellakis, 2010).

Stuntzner and Hartley (2014) have presented a series of topics that can be important for improving the relationship between disabled persons and their counseling professionals that is crucial to helping them with their diverse needs. One of the first topics is the correct use of language. Negative words/terminology for describing the disability must be avoided to prevent the disabled person from perceiving him/herself as being incapable, weak, pitiful and so forth. Another issue is to determine whether the barriers that the disabled person faces are imposed by society or by him/herself. Counsellors have to assist clients to disclose the impact of these barriers in their life in order to ascertain which of them they can change and to deal with the ones they cannot change. Counsellors also have to understand the essence of the adjustment to disability which is a vital requirement for the promotion of change in the individual. There are several models that explain the factors involved in the psychosocial adjustment to disability. It is recommended that counsellors have a good understanding of them as that will allow them to use different strategies in the counselling process in which their clients might recognize their attributes and abilities to better facilitate adjustment. A related issue is that counsellors constantly have to be updating their techniques to improve their assistance to their disabled clients, so they can help them increase their quality of life by changing their negative thinking and/or feelings related to their disability. Finally, counsellors might talk to the disabled person's partner to share professional tips with them about how to treat people with disabilities that will be beneficial for the disabled person, the professional and the therapeutic relationship.

1.3. Counselling Programs for Disabilities

Actually, much work is being performed using Counselling Programs. Providing a Selective Counselling Program in which subjects can improve the quality of care, develop a positive attitude towards disability and support, and discover important factors for their Psychological Well-Being, is necessary and must ensure that the subjects will apply that learning in their daily life (Ashing-Giwa, 2008; Diamond, 2013; Freitas *et al.*, 2017; Green *et al.*, 2006; Zheng *et al.*, 2014). The use of these programs at school is increasing with the purpose of including optimism for adaptation to a specific impairment that will be beneficial for the quality of life of disabled students. In addition, strong motivation is important for changing established behavior patterns for new ones, especially if the disabled students understand that they could be in a better position if they learn and practice the new activities (Freeman, 2013; Jamieson *et al.*, 2006). There are many types of Counselling Programs in literature, and here are some examples.

1.3.1. Client-Centered

This term refers to the integration of different concepts, including: having a productive collaboration with a client (disabled person) based on effective communication; giving proper respect for diversity, and encouraging empowerment in decision-making through therapy sessions (Jamieson *et al.*, 2006; Ripat *et al.*, 2013). Many university programs in occupational therapy, based on this principle, have as a core element of the curriculum a client-centered practice that allows students to reinforce or develop their abilities while learning about many angles of client-centered practice.

1.3.2. Motivational Interviewing (MI)

MI is a humanistic counselling approach that stimulates clients to identify their personal problems or concerns, to analyze the personal consequences of not resolving them and to express themselves by talking about possible changes in their own condition. Recently, empirically validated MI was used by counselors for 15 children from a disciplinary alternative education school, resulting in moderate to large improvements in behavior for around 50% of the children in a classroom (Ratanavivan and Ricard, 2018).

1.3.3. Choice Theory

Choice Theory establishes that each of us is able to choose the manner in which we conduct ourselves for the majority of situations and for being responsible for how we act, think, feel or maintain our physical state (Glasser, 1998). Using this theory in a Counselling Program assisted people to note that their imagination can divert their attention from the choices they can make to improve their life situation. Recently, 30 municipal employees who had psychological problems, who were treated with a counselling program based on Choice Theory, had an increase of self-control and hardiness (Salimi and Haghighat, 2017).

1.3.4. Transcendental Meditation (TM)

TM is a technique for obtaining a state of consciousness of everything surrounding us and it may be important for psychological well-being (Boevig, 2014). The practise of TM is not complicated, is easy to learn and people are easily prepared for practicing it. A group counselling program in TM was formed with female adolescent students (Al, 2017). This group then participated in a study that wanted to explore if TM helped other similar students, with very low school performances (probably resulting from unresolved stressful situations), to reach psychological adjustment. The program was based on Cognitive Behavioral Therapy and aimed at using cognitive behavioral

methods. The findings suggest that the program did have a positive effect on the group of students with psychological problems. They were able to take better control of their emotions, and lower stress which has a strong influence on the ability to learn and memorize.

1.3.5. Guidance and Counseling

Some members of society in certain countries believe that student misconduct can be corrected through corporal punishment while others propose that discipline may be better established by using other methods (Onyango *et al.*, 2018). Educational models through guidance and counselling helped students with misconduct issues to correct their behavior with the consequence that the students achieved an improvement in academic performance (Afande, 2015; Nweze and Okolie, 2014). Recently, a study was performed with a sample of professors and authorities related to guidance and counselling from public secondary schools in Kenya. The study used a mixed method approach: guidance and counseling questionnaire (quantitative) and interview schedules (qualitative). The student information was obtained by applying the Assertive Discipline Model by Lee and Marlene Canter (Canter and Canter, 2001). Results show that guidance and counselling changed the misconduct behavior of the students positively and strengthened their self-esteem (Onyango *et al.*, 2018).

1.3.6. Dialectical Behavior Therapy (DBT)

Due to a personality disorder, college students may harm themselves, this being more common among female students than male. These students can be treated with DBT (Linehan, 2014). DBT is structured and formed by four treatment components: a group in charge of skill training, individual therapy, meetings of counselors to analyze and supervise cases, and phone communication every time it is required between clients and their counselors (Gratz, 2007; Linehan, 1993). DBT helps subjects to control their emotions and understand that by changing their wrong behavior, they can have a better life. Through a dialectic process DBT promotes the development of skills that once they were accepted by the subjects, can deal with hard emotions, frustrating environments, and disturbing patterns of living to change their life-threatening behavior very quickly (Cannon and Umstead, 2016).

1.3.7. Intensive Counseling

People who have an amputation suffer from psychological reactions like depression, insecurity, anxiety and insomnia (Parkes, 1976). This event affects almost all aspects of a person's life, including productivity at work which has consequence for their financial situation (Vileikyte, 2001). These people need psychological help to adapt to their new condition and increase their quality of life (Desmond and MacLachlan, 2002). A study was performed with the purpose of comparing Intensive Counseling and Routine Counselling effects on the psychological consequences of amputation among Type 2 diabetic patients (Amalraj *et al.*, 2017). Patients in the Routine Counselling Group (RCG) received counselling before the amputation and on the day of discharge. In contrast, patients in the Intensive Counselling Group (ICG) received counselling before the amputation and post-amputation psychological counselling every day until the day of discharge. Stress levels were determined through a World Health Quality of Life (WHQOL) questionnaire before the amputation and on the day of discharge. WHQOL consists of 4 domains with 26 questions which measure physical health, psychological health, social factors and environmental factors. Results show that only the ICG group had a significant improvement between pre- and post-amputation in all the domains of WHQOL. Therefore, Intensive Counseling can be seen to be very important for the well-being of an amputee because it diminished the terrible psychological impact of the amputation.

1.3.8. Selective Counseling

The selective direction of counseling and psychotherapy represents an organized effort to benefit from the principles of different schools that can exist between different theories with a view to establishing close and integrated relations between the facts that are closely related with each other, regardless of their theoretical origins (Allen *et al.*, 2008). Therefore, it is an inductive method rather than a metaphorical instead of starting with tribal ideas or theoretical perceptions and to ascertain the validity of the facts of the proposed intellectual model, the psychologist performs inductive procedures he collects and analyzes the facts. He then tries to establish a theoretical construct that explains these facts. This trend has been greatly developed by American scientist Frederic Thorne (Barlow *et al.*, 2011).

1.3.9. Selective Theory Application

1. The guidance in this theory includes the integration of ideas and strategies from all available ways and means to help the patient.
2. Identify the good factors in all personal systems and integrate them into each cohesive to be represented in the behavior in order to interpret them afterwards.
3. This theory emphasizes the comprehension of all the theories and methods of evaluation as factors that assist in the treatment of the client and solve his problems.
4. Not to focus on one theory, but to be an open minded through continuous experiences that lead to valid results.

Counselling Programs are designed by psychologists based on the sample's needs. For instance, some programs might focus on laughter and cortisol (Heo *et al.*, 2016), while others focus on physical activity to improve the health condition and quality of life (Biddle *et al.*, 2000; Claesson *et al.*, 2014; Focht *et al.*, 2004; Molina-García *et al.*,

2011; Vancampfort *et al.*, 2017). Counselling programs working with women with disabilities must take into account that these women face a double disability. They are maltreated on the grounds of being female (although they could manage stress better than men) (Taylor *et al.*, 2000), as well as having disabilities (Palombi and Matteson, 2005). Therefore, such women, mainly in the lower part of a group considered as minority, (Berreman, 1954), have more complications related to favorable circumstances for study, finding vocational jobs, improving their disabled conditions, raising their economic status and integrating into society (Ferri and Gregg, 1998).

In this study a Selective Counselling Program was used to study improvements in the quality of psychological life of female students with motor disabilities from King Abdul Aziz University in Jeddah, Saudi Arabia.

2. Methods

2.1. Sample

The sample used for this research is composed of 7 female students from King Abdul Aziz University, Jeddah Saudi Arabia. The subjects were aged 18-25, had a mean age of 22.8 ± 1.24 , and came from different social classes. They volunteered to participate in this study for a period of six weeks. All participants have had motor disabilities since birth. The study began only after the subjects had given their informed consent.

2.2. Instruments

Two instruments were used for this study: the Selective Counselling Program itself and Ryff's Scales of Psychological Well-Being (Ryff and Keyes, 1995). Three evaluations of the sample were used. The first evaluation using Ryff's Scales took place during the first counselling session, in order to understand the sample's initial condition. The second evaluation took place after the whole counselling program was finished, with approximately six weeks between pre-assessment and post-assessment. The third evaluation took place two months after the study, for follow-up assessment. The results of the three evaluations were analyzed and compared using the Wilcoxon Signed Ranks Test.

2.3. Selective Counselling Program

The Selective Counselling Program was designed by the author, based on Selective Theory in psychological counselling to take the following into account. The program was to be easy-to-use, problem-focused, easy to understand, accepted by the female subjects and easy to be replicable. It consisted of 12 sessions of 60-90 minutes each, during which the subjects received group counselling. These sessions took place twice a week, for a total of six weeks during November-December 2017. The sessions were implemented at the Center for Special Needs in the Female Section at King Abdul-Aziz University. The sample had small variables, such as sociodemographic details (date of birth, social status, education level, age, address) and history. All subjects were born with motor impairment, but treatments and medicine were variable. During the Counselling Program no medical evaluation was implemented.

The main techniques used during the Counselling Program comprised listening to the subjects, explaining Psychological Well-Being factors and providing information on their role in their quality of life. In addition, subjects were informed about how to apply these factors in their daily life, how to be more optimistic and self-confident, how to interact with other people and how to improve their psychological life. During each session the subjects had to describe how they'd applied these factors between the sessions, for a better understanding of their efficacy and progress.

2.4. Ryff's Scales of Psychological Well Being

This scale has Arabic version (El Keshky, in press). One of the authors (Dr. El Keshky) has considerable expertise in the translation and validation of psychological measures.

Ryff Scales of Psychological Well-Being consist of a long form scale of 61 items, divided into the following subscales (Ryff and Keyes, 1995), covering six intra- and interpersonal aspects.

1. Self-acceptance (12 items)
2. Positive relations with others (9 items)
3. Environmental mastery (10 items)
4. Autonomy (11 items)
5. Purpose in life (9 items)
6. Personal growth (10 items)

Subjects had to answer each item and rate the statements on a scale of 1 to 6, where 1 indicated a strong disagreement and 6 a strong agreement with the statement. The autonomy items provided information about self-confidence and opinions, while environmental mastery showed how the subject felt in regard to situation control. When it came to personal growth, the subject evaluated challenging experiences that helped in self-development. Positive relations with others showed how others would describe the respondent, while the items regarding their purpose in life showed how the subject felt about her aims. Finally, the subject evaluated his/her self-acceptance by responding to statements regarding her overall self-perception. About 50% of the answers are reversed scored, as indicated in the test master-copy. High scores in one category show the subject's mastery in that area, while low scores show the subject's lack of comfort with that specific category.

2.5. Data Collection and Statistical Analysis

Data were collected on the pre-test, post-test, and follow-up scores during which the subjects evaluated the six areas of Ryff's Scales of Psychological Well-Being. Data were analyzed by the non-parametric Wilcoxon Signed Ranks Test (Wilcoxon, 1945).

3. Results

Once the tests were completed, the results were gathered. The three evaluations were assessed using the Wilcoxon Signed Ranks Test.

Table-1. Descriptive Statistics for Pretest, Posttest and Follow-up Scores of Dimension Scores of the Psychological Well-Being

Subscale	Pre-test Assessment		Post-test Assessment		Follow-up Assessment	
	Mean	SD	Mean	SD	Mean	SD
Autonomy	33.86	4.018	40.86	6.20	46.71	15.19
Environmental mastery	31.57	5.53	38.86	7.71	38.29	4.99
Personal growth	31.14	8.28	39.00	10.54	36.71	10.11
Positive relations with others	22.43	6.13	30.71	4.39	37.86	9.15
Purpose in life	25.14	2.48	33.71	5.09	31.43	3.78
Self-acceptance	39.29	9.29	53.143	9.44	31.00	4.51
Total degree of Well-Being	194.71	19.41	231.43	22.68	200.57	72.59

SD, standard deviation

Significant improvements were observed in all six areas of Psychological Well-Being, with a tendency for higher numbers in the whole degree of the scales, after applying the counselling program.

Table-2. The Results of Wilcoxon Signed Rank Test for Pre-test Post-test Sensitivity Dimension Scores of the Psychological Well-Being

Subscale		N	Mean Rank	Sum of Ranks	z	p
Autonomy	– Ranks	0	0.00	0.00	-2.201	0.028
	+ Ranks	6	3.50	21.00		
	Ties	1				
	Total	7				
Environmental mastery	– Ranks	1	1.50	1.50	-2.117	0.034
	+ Ranks	6	4.42	26.50		
	Ties	0				
	Total	7				
Personal growth	– Ranks	0	0.00	0.00	-2.023	0.043
	+ Ranks	5	3.00	15.00		
	Ties	2				
	Total	7				
Positive relations with others	– Ranks	1	1.00	1.00	-1.992	0.046
	+ Ranks	5	4.00	20.00		
	Ties	1				
	Total	7				
Purpose in life	– Ranks	0	0.00	0.00	-2.371	0.018
	+ Ranks	7	4.00	28.00		
	Ties	0				
	Total	7				
Self-acceptance	– Ranks	0	0.00	0.00	-2.366	0.018
	+ Ranks	7	4.00	28.00		
	Ties	0				
	Total	7				
Total degree of Well-Being	– Ranks	1	1.00	1.00	-2.197	0.028
	+ Ranks	6	4.50	27.00		
	Ties	0				
	Total	7				

Table 2 presents the results and their statistical analysis. The highest advancements were noticed in terms of self-acceptance (~1.4 times more) which also contains more items in Ryff's Scales. Two months after the Selective Counselling Program ended, the subjects were invited to again answer Ryff's Scales of Psychological Well-Being to find any significant differences. During this period the subjects had time to apply all learnings from the group counselling sessions that could be used to improve their psychological life.

Table-3. The Results of Wilcoxon Signed Rank Test for Post-test and Follow-up Sensitivity Dimension Scores of the Psychological Well-Being

Subscale		N	Mean Rank	Sum of Ranks	z	p
Autonomy	– Ranks	5	3.70	18.50	-0.763	0.445
	+ Ranks	2	4.75	9.50		
	Ties	1				
	Total	7				
Environmental mastery	– Ranks	3	4.50	13.50	-0.085	0.932
	+ Ranks	4	3.63	14.50		
	Ties	0				
	Total	7				
Personal growth	– Ranks	3	5.00	15.00	-0.169	0.866
	+ Ranks	4	3.25	13.00		
	Ties	0				
	Total	7				
Positive relations with others	– Ranks	2	6.50	13.00	-0.169	0.866
	+ Ranks	5	3.00	15.00		
	Ties	0				
	Total	7				
Purpose in life	– Ranks	5	4.00	20.00	-1.022	0.307
	+ Ranks	2	4.00	8.00		
	Ties	0				
	Total	7				
Self-acceptance	– Ranks	4	4.50	18.00	-0.676	0.499
	+ Ranks	3	3.33	10.00		
	Ties	0				
	Total	7				
Total degree of Well-Being	– Ranks	4	4.75	19.00	-0.845	0.398
	+ Ranks	3	3.00	9.00		
	Ties	0				
	Total	7				

Table 3 shows that the Selective Counselling Program was still having effects on the subjects, since they'd improved their positive relations with others.

4. Discussion

Based on previous theories of life development (Fernández *et al.*, 2008), a Selective Counselling Program was designed to improve the Psychological Well-Being of motor disabled female students. Results obtained indicate that the designed program provided valuable information and advice on how subjects could improve the quality of their psychological life since all the dimensions of Ryff's Scale of Psychological Well-Being had higher scores after the whole program was finished. Therefore, subjects may have a better adaptation to disability which increases their autonomy and undoubtedly exerts a positive influence, particularly in their university life, including academic and extracurricular activities, and their relationship with other students, professors and the other university staff. All this allows for an increase in Psychological Well-Being and quality of life.

Some reports indicate that subjects, when they learn to accept these impairments (Bishop *et al.*, 2008) can adapt psychologically to disabilities that limit them and realize some EFs as well as integrate into society. Once this happens, the interaction of the subjects with the environment improves (Diamond, 2013). The process of adaptation is complicated and not easy to understand due to its multidimensional character and subjectivity (Bishop *et al.*, 2008; Kanellakis, 2010). For that reason, one important premise for reaching favorable adaptation is that disabled persons must concentrate on the abilities they have instead of the ones that they lost or never had (Freeman, 2013).

The results of this study are very consistent with previous research in disabled psychology, suggesting that a Selective Counselling Program can most certainly improve the subject's Psychological Well-Being (Freitas *et al.*, 2017; Kanellakis, 2010; Molina-García *et al.*, 2011). Surely, these programs can help people with high-risk factors such as depression, poor social interactions, substance abuse or low self-esteem to increase their quality of life (Busen, 1992; Kanellakis, 2010). Other works have shown that subjects with motor disabilities don't have a favorable personal attitude towards themselves, in addition to their unfavorable health status and in consequence they have poor social interactions (Zheng *et al.*, 2014). This was also seen in the present research with students with even mild disabilities, which allow higher participation in social activities. Counselling Programs have helped in these cases and it is worth mentioning a report about multiple sclerosis in which a Counselling Program aided in increasing the subjects' self-management, which has a very strong connection with perceived control and, as a result, the subjects experienced improved quality of life (Bishop *et al.*, 2008).

Generally, improving self-control and mental health through Counselling Programs increases the quality of psychological life, not only through self-perception, but also through social interaction, since following the

Counselling Program will lead to social skill improvement and more positive behavior with others, regardless of the motor disabilities possessed. This was also seen in the current study since the subjects experienced improved perceptions of the environment, their ability to carry out tasks and reach goals, their self-development strategies and interactions with other people. In conclusion, Psychological Well-Being of motor disabled female students was significantly increased by the Selective Counselling Program specifically designed for that task.

This study was limited to only a total of 7 female students between 18-25 years old. It is recommended that additional research be developed for both female and male subjects, with a wider age range, different social statuses or disabilities and a larger demographic diversity to better observe how Selective Counselling Programs can affect the quality of Psychological Well-Being in subjects with disabilities in different conditions. It is also to be noted that Ryff's Scales of Psychological Well-Being are limited to self-assessments, in which students may not provide their actual responses. This, of course, does not help in reaching a clear statement and a complete understanding of the acquired Psychological Well-Being.

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The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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