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Original article

EFFECTS OF RECREATIONAL PROGRAM ON COPING STRATEGIES AMONG MOTHERS OF CHILDREN WITH DOWN SYNDROME

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Abstract

Aim. Accepting a child's disability requires a long time, in addition to parental concerns about how to provide care and meet the child's needs. The purpose of this study was to identify the effect of recreational program on coping strategies among mothers of children with Down Syndrome.

Methods. Sample was chosen intentionally from the frequenters of intellectual education associations and schools in Sohag Governorate, and their number reached (63) mothers. (20) mothers were excluded to conduct the exploratory study on them, so the basic research sample became (43) mothers, who were divided into two groups, one experimental (21) mother and the other control (22) mothers.

Results. Statistical analyses showed that: Means were significantly different ($p < .05$) subscales (Task-Oriented Coping, Emotion-Oriented Coping, Avoidant Coping) and total CISS-21 to the experimental group.

Conclusions. Under the conditions of our study, recreational program could be affected on coping strategies among mothers of children with Down Syndrome. These results must be considered by instructors to imply these concepts.

Keywords: Recreational Program, Down Syndrome, CISS-21.

Introduction

It is not easy for a child with a special nature to be born into a family, differing in the way or speed of their development, their needs and thinking, and their physical and mental abilities. This makes it incumbent on the family to shoulder a double responsibility for dealing with this child's health, psychological, and social needs.

The family is considered one of the most important of these social systems. It performs its natural role within a balance of variables and elements that help it achieve harmony and stability among all its members.

However, the presence of a disability in a family member may pose a new challenge to the family's role and various functions, as all its members are affected by this event. Consequently, their natural roles are simultaneously affected, and tension and changes in feelings and attitudes become the primary characteristic prevalent within this family.

Caring for a mentally disabled child requires a great effort from the parents, as they are responsible for protecting him and meeting his needs. Considering that he has his own requirements compared to normal children, on the one hand, and on the other hand, the different living conditions of the parents, in terms of material and moral capabilities, etc., the latter two are exposed to negative emotions as well as various types of psychological pressures. Here comes the role of social support, whether formal or informal, to alleviate the impact of these pressures and enable both parents to face the various difficulties and hardships they are exposed to.

In this regard, Iman (2000) indicates that families of disabled children face many problems that affect the level of family care for their children, as it can be considered that the disability of an individual in the family is a disability for his family, as the family is a social structure subject to the rule of social balance, and the position of the disabled person in his family surrounds its relationships with a degree of disorder as long as his disability prevents him from being able to perform his social role fully. Also, the behavior of the disabled person who is excessive in anxiety and depression is met by those around him with behavior excessive in feeling guilty, confused and anxious, which reduces the balance and cohesion of the family.

Study of Vidhya & Raju, (2008) found that Parents of children with disabilities are very different from parents of normal children in the heaviness of the burdens placed on their shoulders and the many pressures placed on them, regardless of the category to which the child belongs.

Manu studies found that parents of children with mental disabilities (Down syndrome) suffer from psychological stress, particularly psychological tension, anxiety, and depression. This is due to their lack of sufficient information or the correct ideas for dealing with children with disabilities, as well as their lack of access to early intervention programs for diagnosis, prevention, and treatment.

A child with a disability requires significant time, effort, attention, and financial resources, and therefore represents a burden on their family in terms of managing their affairs, caring for them, and managing their abnormal behavior. This places additional burdens on the mother, who experiences psychological suffering alongside the physical suffering.

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According to Lazarus & Folkman, (1984) coping has two basic functions one it can change the situation that is causing stress, and the other can modify the emotional responses associated with the problem, i.e., change oneself.

Recreation is a voluntary, enjoyable activity practiced during leisure time that contributes to building an individual and developing their skills.

Kamal & Mohamed (2004) indicate that recreation is a type of activity that an individual chooses based on personal motivation to practice, resulting in the acquisition of numerous physical, social, psychological, and cognitive values and skills.

Recreational activities are widely recognized for their benefits across multiple dimensions—physical, psychological, and social (Morales et. al., 2016; Eigenschenk et al., 2019). These activities play a vital role in promoting harmony between the biological, psychological, social, and spiritual aspects of human well-being. Often associated with leisure time (Gonzalez & Temprano, 2018), they offer a healthy and constructive way to spend free time and contribute positively to lifestyle choices. Mohamed & Aida, (2006) believes that recreation has multiple goals, including health-related goals generally related to individual health, such as improving one's health status, preventing and reducing the risk of chest diseases, developing desirable health habits, reducing nervous tension and anxiety, and maintaining an appropriate weight. Therefore, practicing a recreational hobby is an important and necessary thing for individuals to cope with psychological stress. This is consistent with what Kamal & Muhammad (2004) indicated, stating that a healthy person is one who has recreational hobbies.

Vivian (2007) indicates that mothers with disabilities children enjoy less family leisure time, and their recreational needs are neglected.

Family relationships are the foundation of society, and any disruption in them negatively impacts social relations in general. The presence of a sick or disabled family member can cause significant tension, especially between parents, as they are the most affected by a child's illness or disability. The presence of a child with a mental or physical disability in the family is considered one of the greatest sources of stress and anxiety for parents. Accepting a child's disability requires a long time, in addition to parental concerns about how to provide care and meet the child's needs.

Caring for a child with a mental disability requires significant effort from parents, as they are responsible for protecting the child and meeting their needs. Given that the child has unique needs compared to normal children, and the different living conditions of the parents, including financial and emotional capabilities, make them vulnerable to negative emotions and various forms of psychological pressures, this is where social support, whether formal or informal, comes in. This helps alleviate these pressures and empower both parents to face the various difficulties and hardships they face.

By browsing the World Wide Web (the Internet), we noticed that most of the studies that were conducted were on children with Down syndrome, ignoring their mothers, and did not address family recreational programs as a study of (Oates, 2009; Mihaila et al. 2020; Tapia et al. 2025)

So, the study aims to identify the effect of recreational program on coping strategies among mothers of children with Down Syndrome.

Methods

Sample was chosen intentionally from the frequenters of intellectual education associations and schools in Sohag Governorate, and their number reached (63) mothers. (20) mothers were excluded to conduct the exploratory study on them, so the basic research sample became (43) mothers, who were divided into two groups, one experimental (21) mother and the other control (22) mothers.

Sample selection criteria:

- There must be no more than one mentally disabled child in the family (Down syndrome).
- The disabled child must be no older than 8 years old.
- The mother must be literate.
- The mother must be between 40 and 50 years old.
- Similar socioeconomic status.

Table 1. The age and socioeconomic status of the Groups (Mean \pm SD)

Group	N	Age [years]	socioeconomic status [degree]
Control group	22	41 \pm 4.2	7 \pm 1.34
Experimental group	21	42 \pm 3.8	6 \pm 1.89

Table 1 shows the age and socioeconomic status of the subjects. There no significant differences were observed in the age and Training experience for the subjects in the different events.

Instrument

CISS-21 Questionnaire

The CISS-21 Questionnaire is a self-assessment tool designed to evaluate three primary coping styles. These include Task-Oriented Coping, which emphasizes active problem-solving; Emotion-Oriented Coping, which focuses on

managing emotional reactions to stress; and Avoidant Coping, which involves using distraction or seeking social interaction to evade the stressor. Each coping style is assessed through seven items rated on a Likert scale at (1-NO) to (2-YES), allowing participants to indicate how frequently they engage in each strategy. CISS-21 offers a streamlined yet effective approach to measuring these coping styles, with demonstrated reliability and validity across diverse populations.

Statistical analysis

The study utilized version 26 of the Statistical Package for Social Sciences (SPSS) software. Analyses included the calculation of means and standard deviations, along with the application of the student's t-test for paired and independent samples to evaluate differences in specific parameters between the two groups.

Results

- Test-Retest Reliability

Table 2. Mean \pm SD, and "R" sign between Test-Retest Reliability in CISS-21

Variables	Test		Retest		R
	M	SD	M	SD	
Task-Oriented Coping	10.66	1.18	10.34	1.56	0.76
Emotion-Oriented Coping	11.85	1.54	10.68	1.87	0.83
Avoidant Coping	10.74	1.89	10.73	1.21	0.87
Total CISS-21	33.25	1.87	31.75	1.12	0.81

Significant differences, $p < 0.05$

The test-retest reliability for the CISS-21 Questionnaire ranges between. 0.76- to 0.87

- Discriminate validity

Table 3. Mean \pm SD, and "T" sign between upper and lower quartile in CISS-21

Variables	Upper quartile		lower quartile		T sign
	M	SD	M	SD	
Task-Oriented Coping	12.78	1.13	10.66	1.18	Sign
Emotion-Oriented Coping	12.85	1.43	11.85	1.54	Sign
Avoidant Coping	12.74	1.56	10.74	1.89	Sign
Total CISS-21	37.37	1.57	33.25	1.87	Sign

Significant differences, $p < 0.05$

A paired sample T-test revealed that these means were significantly different ($p = < .05$) in all three subscales (Task-Oriented Coping, Emotion-Oriented Coping, Avoidant Coping) and total CISS-21.

Table 4. Mean \pm SD, and "T" sign between Pre and Post – measurements in CISS-21 to the control group

Variables	Pre		Post		T sign
	M	SD	M	SD	
Task-Oriented Coping	9.64	1.14	10.32	1.53	No Sign
Emotion-Oriented Coping	10.85	1.52	10.97	1.36	No Sign
Avoidant Coping	8.52	1.76	9.89	1.62	No Sign
Total CISS-21	29.01	1.81	31.18	1.45	No Sign

Significant differences, $p < 0.05$

A paired sample T-test revealed that it was not significantly different ($p = > .05$) in subscales (Task-Oriented Coping, Emotion-Oriented Coping, Avoidant Coping) and total CISS-21 to the control group.

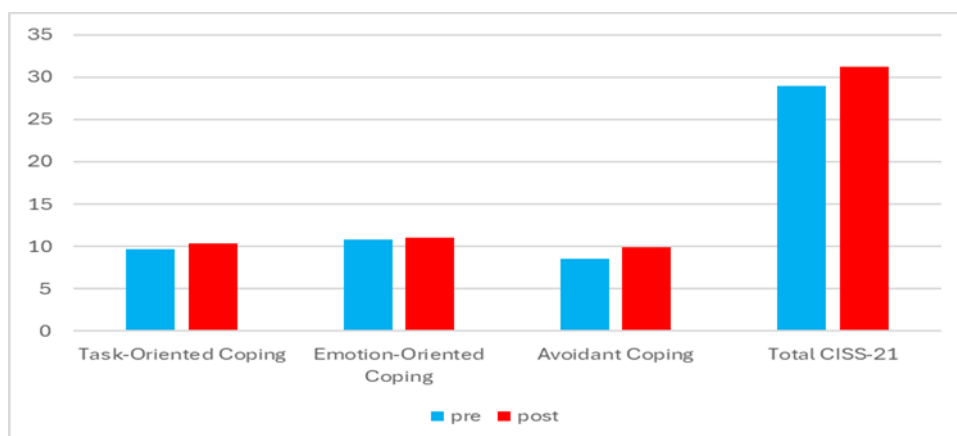


Figure 1. Difference ($p < .05$) between Pre and Post – measurements in CISS-21 to the control group

Table 5. Mean \pm SD, and “T” sign between Pre and Post – measurements in CISS-21 to the experimental group

Variables	Pre		Post		T sign
	M	SD	M	SD	
Task-Oriented Coping	10.11	1.22	12.57	1.14	Sign
Emotion-Oriented Coping	10.23	1.30	12.77	1.25	Sign
Avoidant Coping	8.36	1.42	12.19	1.28	Sign
Total CISS-21	28.70	2.81	37.53	1.22	Sign

Significant differences, $p < 0.05$

A paired sample T-test revealed that these means were significantly different ($p < .05$) in subscales; confidence, constancy and Total SMTQ- 14 for track event players. No significant difference ($p > .05$) in control variable.

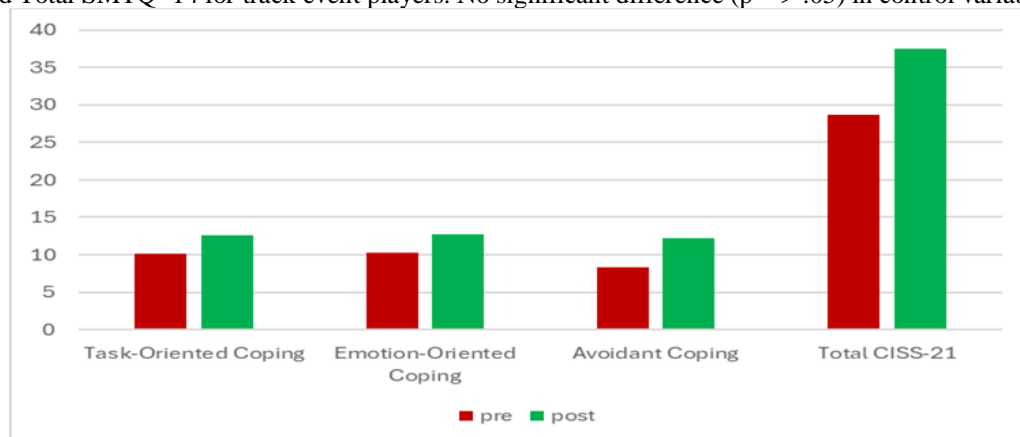


Figure 2. Difference ($p < .05$) between Pre and Post – measurements in CISS-21 to experimental group

Table 6. Mean \pm SD, and “T” sign between experimental and control groups in CISS-21

Variables	Control group		Experimental group		T sign
	M	SD	M	SD	
Task-Oriented Coping	10.32	1.53	12.57	1.14	Sign
Emotion-Oriented Coping	10.97	1.36	12.77	1.25	Sign
Avoidant Coping	9.89	1.62	12.19	1.28	No Sign
Total CISS-21	31.18	1.45	37.53	1.22	Sign

Significant differences, $p < 0.05$

An independent sample t-test revealed that these means were significantly different ($p < .05$) subscales (Task-Oriented Coping, Emotion-Oriented Coping, Avoidant Coping) and total CISS-21 to the experimental group.

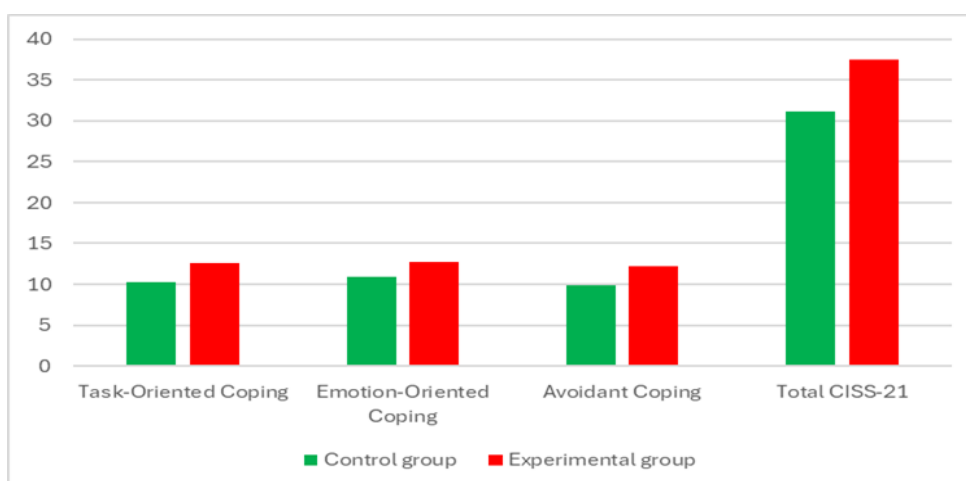


Figure 3. Difference ($p < .05$) between Post – measurements in CISS-21 to experimental and control groups

Discussions

RR. Obregón et al. (2018) indicated that physical recreation is highlighted as a dynamic and participatory aspect of human experience rather than a static concept. This encompasses freedom of choice, creativity, satisfaction, enjoyment, among other qualities, all of which promote personal, social, and even economic growth. Such activities significantly contribute to quality of life by fostering health and well-being through diverse options that allow individuals and groups to select pursuits in line with their experiences, needs, interests, and values. In this way, physical recreation becomes both a personal endeavor and a collective social phenomenon.

Mohamed & Aida, (2006) note that engaging in various recreational activities contributes to raising physical fitness levels and improving an individual's psychological and social well-being.

The results of a study by Hassal et al. (2005) also revealed high levels of stress among mothers, particularly around self-control, due to the behavioral problems their children suffer from.

Vivian (2007) emphasizes the importance of sports recreation for mothers of children with psychological and social disabilities. This group suffers from a great deal of psychological and social stress, which exposes them to psychological exhaustion, which in turn affects their interactions with their disabled child. This, in turn, reduces their interaction with those around them, which plays a significant role in their satisfaction with their lives. Ruhi (2007) emphasizes the importance of engaging in recreational activities for all family members of children with disabilities so that they can cope with stressful life situations.

The study by Shaimaa et al. (2016) emphasizes the importance of recreation for mothers of children with disabilities in improving their positive thinking, which positively impacts the adaptive behavior of their children with mental disabilities.

The study results are consistent with Ashraf study (2011) on the effectiveness of a counseling program based on reality therapy to reduce psychological stress among mothers of children with disabilities. And study results of Amanda H. Young (2016) indicated that mothers characteristics impacted their recreation decisions, and that mothers sought a balance in accomplishing recreation and other commitments. Additionally, families experienced recreation in inclusive settings within their natural environment, and they held high expectations for their child and family recreational participation.

Conclusions

The purpose of the present study was to identify the effect of recreational program on coping strategies among mothers of children with Down Syndrome.

This improvement is attributed to the proposed recreational program, which includes a variety of comprehensive, small games appropriate for the chronological age of mothers of children with disabilities. It also incorporates elements of fun, joy, and arousal, which are pleasurable due to the multiple and varied situations they encounter from moment to moment.

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