

Use Of Management Strategies By Mothers Of Daughters With Intellectual Disabilities Suffering From Insomnia Living In Lahore City

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Abstract

The study was design to identify most common sleep problems of daughters with intellectual disabilities faced by their mothers, the common remedies, treatments and strategies used by mothers to manage sleep problems of their daughters with intellectual disabilities. Further the relationship between age of girls with intellectual disabilities suffering from insomnia and the use of management strategies by their mothers was also examined. Mothers of intellectually disabled girls with sleep disruptions were the population of the study. A sample of mothers (n = 30) randomly selected from Lahore city whose daughters with intellectual disabilities were studying in special schools. Quantitative research method was used for the study. A self-developed questionnaire comprised of statements regarding remedies, treatments and therapies to treat insomnia was used by the researchers to collect data. Researchers used descriptive and inferential statistical procedures to obtain the results i.e., frequencies, percentages, mean scores, and Pearson “r” coefficient of correlation. The data analysis revealed some of very important strategies, remedies, and treatments to treat insomnia among girls with intellectual disabilities. These strategies are like use any prescribed medication, recite surah /verses from Quran Pak, change in

temperature, light and noise, aroma therapy, behavioral therapy, relaxation training, biofeedback and use of oil massage therapy. The study has practical implications in treating insomnia among children with intellectual disabilities.

Keywords: Insomnia, intellectual disability, daughters, mothers, remedies, therapies, treatment

Introduction

Sleep is a blessing of Almighty. It releases mental stress and gives peace of mind to human beings. It also reduces physical tiredness and bestows calm to human body. Peaceful sleep enables human beings to get ready for the functioning of the next day. Many human beings face sleep problems. They don't have appropriate time and duration of sleep. That is why; such segment of population gets headaches, muscular stretchiness, irritability, fatigue, concentration problems, forgetfulness and others as well. It adversely affects cognition, behavior, daily performance and mood of the affected persons.

Sleep problems are not only common among general segment of population but children with ID also face persistent deficits in sleep times and routines of it. Insomnia is a common abnormality found in girls with intellectual disability (ID). Many parents especially mothers do not understand sleep problems of their daughters. On other hand, some mothers are very much conscious about the sleeping times and awakening routines of their daughters. To cope with the challenges of sleep abnormalities and irregularities found in girls with ID depend upon the relationship between mother and daughter. Some conscious mothers are aware of their daughter's irregular patterns of sleep such as night waking, short span of sleep, day time sleepiness and others. These mothers know the troubles of their daughters in falling asleep, staying asleep overnight and waking up too early at morning.

Identification and control over factors causing disruption in sleep is required to meet sleep challenges. Simple tips for sleep initiation and maintenance are considered over uncontrolled factors. Some mothers prepare strict schedule of sleep routines for their daughters to make them habitual with sleep initiations and sleep maintenances. Others pay attention towards dietary habits to feel their daughters sleepy.

Environmental factors significantly contribute to promote better sleep. That is why, some mothers create restful environment to reduce disruptive sleep challenges. Psychological treatment and herbal dietary supplements are also advantageous to treat insomnia. Behavioral techniques, physical measures and pharmacological approaches are also considered to treat disruption in peaceful sleep. It is simply said that mild disturbances of sleep may be managed by behavioral modifications while moderate to severe anomalies need medications.

Review of Related Literature

Sleep problem are common in intellectually disabled segment of population (Robinson & Richdale, 2004). Robinson and Richdale (2)004 found that children with severe intellectual disabilities (63.6 %) face more sleep challenges as compare to children with mild intellectual

disabilities (30.4 %) and moderate intellectual disabilities (33.9 %). Later on, Richdale and Baker (2014) reported that sleep disruptions face by profound children with intellectual challenges are more stressful for their parents as compare to sleep disruptions face by mild and moderate children with intellectual challenges.

Wiggs and Stores (1996) concluded that medication was the medication was the most widely used intervention to treat sleep disruption in children with severe intellectual disabilities. Bramble (1996) explained that sleep disruptions are more frequently occurred in intellectually challenged segment of population and are dealt with behavioral modification. Robinson & Richdale (2004) examined that behavioral intervention was not as significant as other treatments were rated to treat sleep disruptions in children with intellectual disability.

Parents of children with intellectually challenged segment population rated drug therapy and behavioral therapy as equally significant to treat sleep disruptions (Robinson & Richdale, 2004). Another study conducted by Wiggs & Stores (1996) found higher level of parent's satisfaction with behavioral interventions as compare to medication to deal with sleep challenges in children with intellectual disabilities. Williams et al. (2006) also found behavioral interventions significant to treat sleep problems in children with autism spectrum disorder. Polimeni (2005) conducted a study and found that parents of children with special need are consistent to use pharmacological treatments to meet the challenges of sleep.

According to Didden et al. (2002) 47% parents of children with intellectual disabilities reported fatigue and 28% parents of children with intellectual disabilities reported irritability as major consequences of poor sleep associated with such segment of population. Didden et al. (2002) also assessed that 4.2%, 10.8%, and 4.2% children with intellectual disability faced severe settling problems, night waking and early waking consequently, while, 16.1% of children with intellectual disability had to face at least one of the three sleeping disruptions. van de Wouw (2013) collected data for 301 older adults with intellectual disability on sleep actigraphy and found that sleep disruptions with night waking occurred in 72% of the sample as the most common consequence.

Purpose of the Study

Several studies examined potential strategies to treat sleep disruptions in children with intellectual disabilities. This segment of population needs optimal levels of peaceful sleep to perform daily routines appropriately. Increased sleep disruptions in girls with intellectual disability needs to be treated in Pakistani society. Keeping this view in mind, the researchers investigated techniques best suited to treat insomnia in girls with intellectual disability. This research will definitely help mothers to know potential ways to treat their daughters regarding disruptions of their sleep.

Research Questions

The researchers seek answers to the following questions:

1. What are the most common sleep problems of daughters with intellectual disabilities faced by their mothers?

2. What are the common remedies used by mothers to manage sleep problems of their daughters with intellectual disabilities?
3. What are the treatment and management strategies used by mothers of daughters with intellectual disabilities for insomnia?
4. What is the relationship between age of girls with intellectual disabilities suffering from insomnia and the use of management strategies by their mothers?
5. What is the relationship between age of daughters with intellectual disabilities suffering from insomnia and the use of management strategies by their mothers?

Methods

Population

Mothers of intellectually disabled girls with sleep disruptions were the population of the study.

Sample

A sample of mothers (n = 30) randomly selected from Lahore city whose daughters with intellectual disabilities were studying in special schools.

Figure 1 School wise distribution of sample

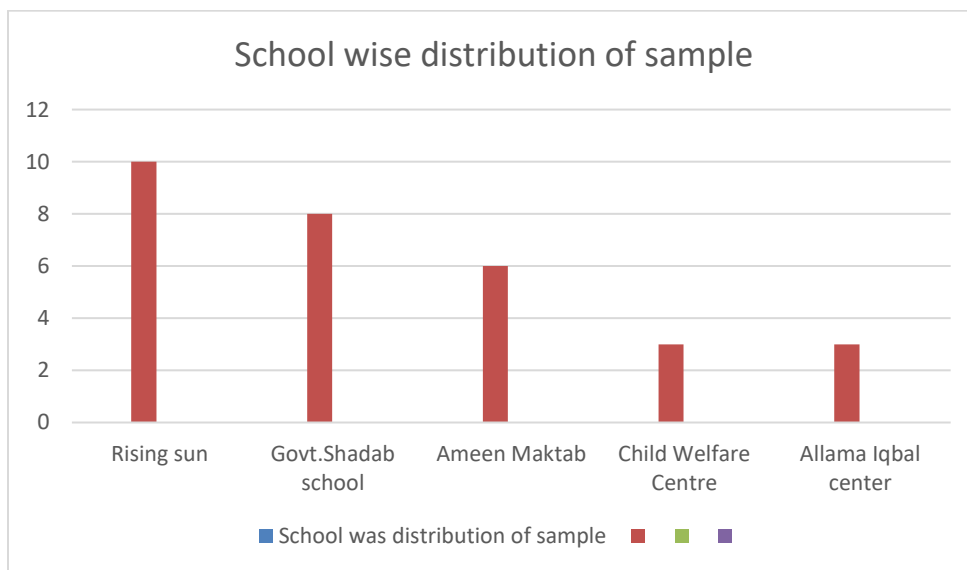


Figure elaborates maximum mothers of daughter with intellectual disabilities enrolled in Rising sun school was included in this sample.

Figure 2 Ages of daughters with intellectual disabilities

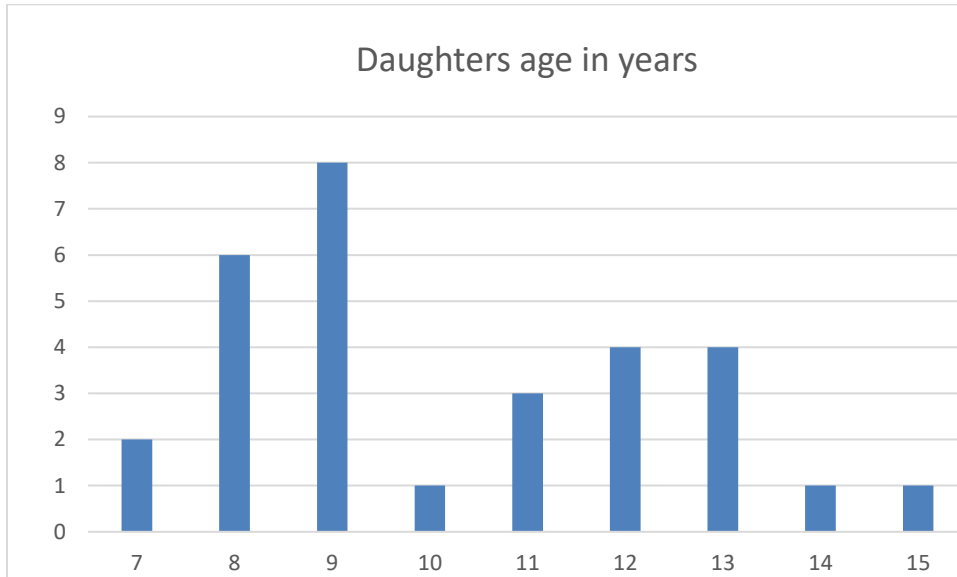


Figure 2 clearly shows that most of the daughters of 9 years with intellectual disabilities whose mothers were included in this sample.

Figure 3 Showing qualification of the mothers of girls with intellectual disabilities

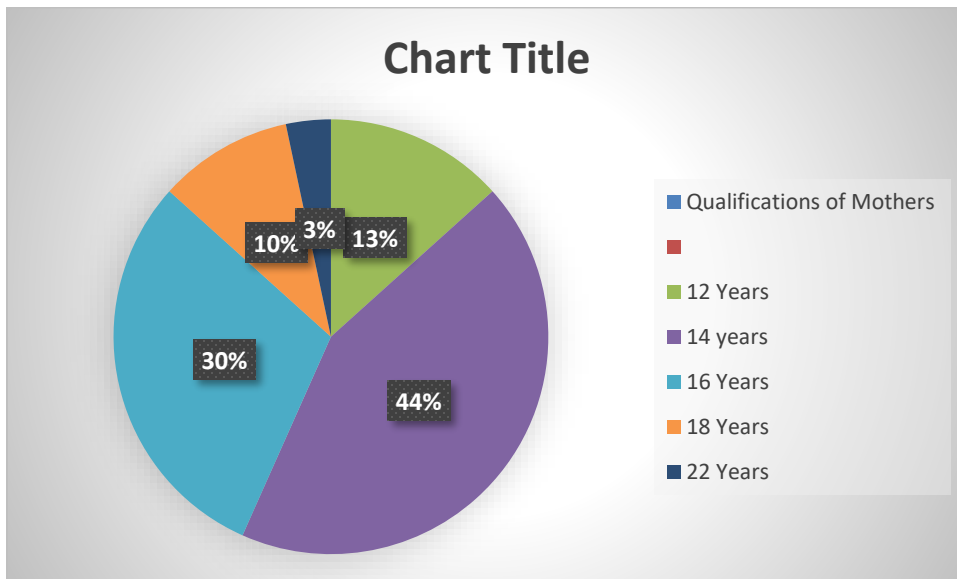


Figure 3 depicts that 44% mothers were with Bachelor Level qualification only 3% were with Doctorate level of qualification

Research Method

Quantitative research method was used for the study.

Research Instrument

A self-developed questionnaire (reliable at Cronbach's Alpha=.880) on dichotomous scale (Yes = 2/ No=1) (part-I), first 14 questions and five-point Likert scale i.e., Never=1, rarely=2, Occasionally=3, Most nights=4, and Always =5 (part-II) for remaining 23 statements were used by the researchers to collect data.

Procedure of data collection

Researchers with the administrative support given by school heads approached mothers of girls with intellectual disabilities studying in special schools of Lahore city to collect data on given problem. In case of illiterate mothers, the questionnaire was translated in to local and native languages so that maximum correct responses can be recorded.

Statistical Analysis and results

Researchers used descriptive and inferential statistical procedures to obtain the results.

Table 1 Common sleep disruptions in daughters with intellectual disability faced by their mothers

Sr. No.	Questions	F	%	Mean	SD
1	Does your daughter afraid of to go to bed and have sleep?	Yes=24 No=4	Yes=86.7 No=13.3	1.67	.479
2	Does Your daughter feel sad and depressed before to go to bed to have sleep?	Yes=24 No=6	Yes=80 No=20	1.87	.346
3	Does your daughter Wake up again and again?	Yes=24 No=6	Yes=80 No=20	1.87	.346
4	Does your daughter take time to fall asleep?	Yes=24 No=4	Yes=86.7 No=13.3	1.67	.479

Table 1 shows that majority of the parents i.e. more than 80% of the mothers having daughters with intellectual disabilities were agreed to the sleeping disorders mentioned in the scale i.e. fear of going to bed for sleep, feeling sad and depresses while going to sleep, waking up again and again during sleep and taking excessive time to fall asleep. While 20% of the mothers responded in No for these sleeping disorders. It means that these are commonly observed sleeping disorders among children with intellectual disabilities.

Table 2 Common remedies used by mothers to manage sleep problems of daughters with intellectual disabilities

Sr. No.	Questions	F	%	Mean	SD
1	Do you Use any doze to get your daughter ready to fall sleep?	Yes=20 No=10	Yes=66.7 No=33.3	1.27	.450

2	Do you use any prescribed medication for your daughter to fall asleep?	Yes=22 No=8	Yes=73.3 No=26.7	1.83	.379
3	Do you recite surah /verses from Quran Pak to get your daughter ready to fall asleep?	Yes=25 No=5	Yes=83.3 No=16.7	1.63	.490
4	Do you give any food (eatables/liquid) to your daughter before going to bed?	Yes=19 No=11	Yes=63.3 No=36.7	1.13	.346
5	Do you avoid any food (Eatables/liquid) form your daughter before going to bed?	Yes=24 No=6	Yes=80 No=20	1.87	.346
6	Do you lay down on bed with your daughter to get your daughter ready to fall asleep?	Yes=22 No=8	Yes=73.3 No=26.7	.450	.607
7	Do you Change (reduce/increase) Temperature of your daughter's area of sleep?	Yes=22 No=8	Yes=73.3 No=26.7	.450	.607
8	Do you change (reduce /increase) light of your daughter's area of sleep?	Yes=28 No=2	Yes=93.3 No=6.7	1.93	.254
9	Do you change (reduce /increase) Noise of your daughter's area of sleep?	Yes=25 No=5	Yes=83.3 No=16.7	1.63	.490
10	Do you minimize distractors (computer, television) of your daughter's area of sleep?	Yes=24 No=6	Yes=80 No=20	1.87	.346

Table 2 shows that 66% of the mothers having daughters with intellectual disabilities use any dose as a remedy to manage the sleep problems of their daughters. 73% of the mothers having daughters with intellectual disabilities use any prescribed medication for their daughters to fall asleep. 83% of the mothers having daughters with intellectual disabilities recite surah /verses from Quran Pak to get their daughters ready to fall asleep. 63% of the mothers having daughters with intellectual disabilities give any food (eatables/liquid) to their daughters before going to bed. 73% of the mothers having daughters with intellectual disabilities lay down on bed with their daughters to get them ready to fall asleep. 73% of the mothers having daughters with intellectual disabilities Change (reduce/increase) Temperature of their daughter's area of sleep. 93% of the mothers having daughters with intellectual disabilities change (reduce /increase) light of their daughter's area of sleep. 83% of the mothers having daughters with intellectual disabilities change (reduce /increase) Noise of their daughter's area of sleep. 80% of the mothers having daughters with intellectual disabilities minimize distractors (computer, television) of their daughter's area of sleep.

Table 3 Treatment and management strategies used by mothers of daughters with intellectual disabilities for insomnia

Sr. No.	Statements	Never	Rarely	Occasionally	Most nights	Always	Mean	SD
1	use aroma therapy to treat insomnia of your daughter	F=6 %=20	F=8 %=26.7	F=8 %=26.7	F=6 %=20	F=2 %=6.7	2.67	1.213

2	use bright-light therapy to treat insomnia of your daughter	F=4 %=13.3	F=12 %=40	F=6 %=20	F=3 %=10	F=5 %=16.7	2.77	1.305
3	use brief behavioral therapy to treat insomnia of your daughter	F=5 %=16.7	F=5 %=16.7	F=8 %=26.7	F=7 %=23.3	F=5 %=16.7	3.07	1.337
4	use cognitive behavioral therapy to treat insomnia of your daughter	F=7 %=23.3	F=5 %=16.7	F=3 %=10	F=12 %=40	F=3 %=10	2.97	1.402
5	use music therapy to treat insomnia of your daughter	F=7 %=23.3	F=8 %=26.7	F=2 %=6.7	F=9 %=30	F=4 %=13.3	2.83	1.440
6	use exercise to treat insomnia of your daughter	F=4 %=13.3	F=7 %=23.3	F=6 %=20	F=5 %=16.7	F=8 %=26.7	3.20	1.424
7	use relaxation training to treat insomnia of your daughter	F=5 %=16.7	F=9 %=30	F=6 %=20	F=8 %=26.7	F=2 %=6.7	2.77	1.223
8	use biofeedback to treat insomnia of your daughter	F=5 %=16.7	F=4 %=13.3	F=5 %=16.7	F=16 %=53.3	--	3.07	1.172
9	use sleep restriction to treat insomnia of your daughter	F=6 %=20	F=7 %=23.3	F=7 %=23.3	F=7 %=23.3	F=3 %=10	2.80	1.297
10	use acupuncture to treat insomnia of your daughter	F=5 %=16.7	F=10 %=33.3	F=10 %=33.3	F=5 %=16.7	--	2.67	1.124
11	use acupressure to treat insomnia of your daughter	F=6 %=20	F=7 %=23.3	F=4 %=13.3	F=6 %=20	F=7 %=23.3	3.03	1.497
12	use homeopathy to treat insomnia of your daughter	F=7 %=23.3	F=9 %=30	F=6 %=20	F=6 %=20	F=2 %=6.7	2.57	1.251

13	use cupping to treat insomnia of your daughter	F=7 %=23.3	F=14 %=46.7	F=6 %=20	F=2 %=6.7	F=1 %=3.3	2.20	.997
14	use hypnotherapy to treat insomnia of your daughter	F=16 %=53.3	F=10 %=33.3	F=2 %=6.7	F=2 %=6.7	--	1.67	.884
15	use yoga to treat insomnia of your daughter	F=18 %=60	F=5 %=16.7	F=3 %=10	F=4 %=13.3	--	1.77	1.104
16	use oil massage in hair to treat insomnia of your daughter	F=10 %=33.3	F=5 %=16.7	F=3 %=10	F=7 %=23.3	F=5 %=16.7	3.73	1.552
17	use reflexology to treat insomnia of your daughter	F=17 %=56.7	F=6 %=20	F=5 %=16.7	F=1 %=3.3	F=1 %=3.3	1.77	1.073
18	use Bach flower to treat insomnia of your daughter	F=17 %=56.7	F=7 %=23.3	F=4 %=13.3	F=1 %=3.3	F=1 %=3.3	1.73	1.048
19	use isoflavones to treat insomnia of your daughter	F= 18 %=60	F=4 %=13.3	F=6 %=20	F=1 %=3.3	F=1 %=3.3	1.80	1.126
20	use L-tryptophan to treat insomnia of your daughter	F=17 %=56.7	F=6 %=20	F=4 %=13.3	F=2 %=6.7	F=1 %=3.3	1.87	1.095
21	use magnesium to treat insomnia of your daughter	F=14 %=46.7	F=10 %=33.3	F=3 %=10	F=2 %=6.7	F=1 %=3.3	2.63	1.326
22	use alcohol-based product to treat insomnia of your daughter	F=16 %=53.3	F=8 %=26.7	F=3 %=10	F=2 %=6.7	F=1 %=3.3	2.07	1.337
23	use caffeine to treat insomnia of your daughter	F=6 %=20	F=8 %=26.7	F=8 %=26.7	F=6 %=20	F=2 %=6.7	1.73	.640

Table 3 shows that the mean score of mothers of daughters with intellectual disabilities who use aroma therapy to treat insomnia of their daughters was 2.67 on five-point likert scale which means that aroma therapy was not used up to greater extent by mothers to tret the sleeping problems of their daughters. The mean score of mothers of daughters with intellectual disabilities

who use bright-light therapy to treat insomnia of their daughter was 2.77 which means bright-light therapy to treat insomnia was less used by mothers. The mean score of mothers of daughters with intellectual disabilities who use brief behavioral therapy to treat insomnia of their daughters was 3.07 which mean behavioral therapy is most commonly used treatment of insomnia used by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use music therapy to treat insomnia of their daughters was 2.83 which means music therapy was less used treatment for insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use biofeedback to treat insomnia of their daughters was 3.07 which means biofeedback was in greater use treatment for insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use sleep restriction to treat insomnia of their daughters was 2.80 which means that sleep restriction was less used strategy to treat insomnia. The mean score of mothers of daughters with intellectual disabilities who use hypnotherapy to treat insomnia of their daughters was 1.67 which means hypnotherapy was less used strategy to treat insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use yoga to treat insomnia of their daughter was 1.77 which means that yoga was less used strategy to treat insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use oil massage in hair to treat insomnia of their daughters was 3.73 which means that oil massage strategy was most preferred treatment of insomnia as perceived by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use alcohol-based product to treat insomnia of their daughter was 2.07 which means use of alcohol-based product to treat insomnia was less preferred treatment of insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use caffeine to treat insomnia of their daughters was 1.73 which means that use of caffeine to treat insomnia was less preferred treatment of insomnia by mothers of daughters with intellectual disabilities.

Table 4 Relationship between mothers' qualification and their use of management strategies for insomnia

Correlation	Qualification of Mothers	Management strategies score
Pearson Correlation		-.106
Sig.(2-tailed)		.577
N	30	30

Table 4 indicates that there is no significant correlation ($r=-.106$, $sig= .577$) between mothers' qualification and their use of management strategies for insomnia.

Table 5 Relationship between age of girls with intellectual disabilities suffering from insomnia and the use of management strategies by their mothers

Correlation	Age of the girls	Management strategies score
Pearson Correlation		.506
Sig.(2-tailed)		.004
N	30	30

Table 5 explains that there is a significant correlation ($r=.506$, $sig=.004$) between age of girls with intellectual disabilities suffering from insomnia and the use of management strategies by their mothers

Findings & Conclusions

Following were the main findings & conclusions of the study:

- Majority of the parents i.e., more than 80% of the mothers having daughters with intellectual disabilities were agreed to the sleeping disorders mentioned in the scale i.e., fear of going to bed for sleep, feeling sad and depresses while going to sleep, waking up again and again during sleep and taking excessive time to fall asleep. While 20% of the mothers responded in No for these sleeping disorders. It means that these are commonly observed sleeping disorders among children with intellectual disabilities.
- 66% of the mothers having daughters with intellectual disabilities use any dose as a remedy to manage the sleep problems of their daughters. 73% of the mothers having daughters with intellectual disabilities use any prescribed medication for their daughters to fall asleep. 83% of the mothers having daughters with intellectual disabilities recite surah /verses from Quran Pak to get their daughters ready to fall asleep. 63% of the mothers having daughters with intellectual disabilities give any food (eatables/liquid) to their daughters before going to bed. 73% of the mothers having daughters with intellectual disabilities lay down on bed with their daughters to get them ready to fall asleep. 73% of the mothers having daughters with intellectual disabilities Change (reduce/increase) Temperature of their daughter's area of sleep. 93% of the mothers having daughters with intellectual disabilities change (reduce /increase) light of their daughter's area of sleep. 83% of the mothers having daughters with intellectual disabilities change (reduce /increase) Noise of their daughter's area of sleep. 80% of the mothers having daughters with intellectual disabilities minimize distractors (computer, television) of their daughter's area of sleep.
- The mean score of mothers of daughters with intellectual disabilities who use aroma therapy to treat insomnia of their daughters was 2.67 on five-point Likert scale which means that aroma therapy was not used up to greater extent by mothers to treat the sleeping problems of their daughters. The mean score of mothers of daughters with intellectual disabilities who use bright-light therapy to treat insomnia of their daughter was 2.77 which means bright-light therapy to treat insomnia was less used by mothers. The mean score of mothers of daughters with intellectual disabilities who use brief behavioral therapy to treat insomnia of their daughters was 3.07 which means behavioral therapy is most commonly used treatment of insomnia used by mothers of daughters with intellectual disabilities. The

mean score of mothers of daughters with intellectual disabilities who use music therapy to treat insomnia of their daughters was 2.83 which means music therapy was less used treatment for insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use biofeedback to treat insomnia of their daughters was 3.07 which means biofeedback was in greater use treatment for insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use sleep restriction to treat insomnia of their daughters was 2.80 which means that sleep restriction was less used strategy to treat insomnia. The mean score of mothers of daughters with intellectual disabilities who use hypnotherapy to treat insomnia of their daughters was 1.67 which means hypnotherapy was less used strategy to treat insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use yoga to treat insomnia of their daughter was 1.77 which means that yoga was less used strategy to treat insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use oil massage in hair to treat insomnia of their daughters was 3.73 which means that oil massage strategy was most preferred treatment of insomnia as perceived by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use alcohol-based product to treat insomnia of their daughter was 2.07 which means use of alcohol-based product to treat insomnia was less preferred treatment of insomnia by mothers of daughters with intellectual disabilities. The mean score of mothers of daughters with intellectual disabilities who use caffeine to treat insomnia of their daughters was 1.73 which means that use of caffeine to treat insomnia was less preferred treatment of insomnia by mothers of daughters with intellectual disabilities.

- There is no significant correlation ($r=-.106$, $sig=.577$) between mothers' qualification and their use of management strategies for insomnia.
- There is a significant correlation ($r=.506$, $sig=.004$) between age of girls with intellectual disabilities suffering from insomnia and the use of management strategies by their mothers

Discussion

Insomnia is a common sleeping disorder which is caused by stress, depression, anxiety, illness or any disability. Specifically, insomnia is most common in children with intellectual disabilities as their mind does not function properly and remain in restless situation. People with insomnia can't fall asleep, stay asleep or get enough restful slumber. Over time, lack of sleep can lead to health problems like diabetes, hypertension and weight gain. Behavioral and lifestyle changes can improve your rest. Short-term insomnia often gets better on its own, but severe types of insomnia need proper medical treatments or therapies. The study was designed to get insight into preferred strategies of mothers to resolve sleeping problems of their daughters with intellectual disabilities. The study highlighted very useful strategies, remedies and treatments to treat insomnia among

children with intellectual disabilities. These strategies are like use any prescribed medication, recite surah /verses from Quran Pak, change in temperature, light and noise, aroma therapy, behavioral therapy, relaxation training, biofeedback and use of oil massage therapy. These all treatments, therapies and strategies are very useful in treating insomnia among children with intellectual disabilities.

Recommendations

The treatments, strategies and therapies to treat insomnia among girls with intellectual disabilities explored in this study are highly recommended to be used in practical manner while treating sleep problems. Moreover, it is also recommended here that future research may also be conducted to identify more strategies, treatments and therapies in consultation with medical and physical practitioners like doctors and physiotherapists. More research is recommended to be conducted by taking an expended sample size.

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