Mothers' Perception regarding Health Lifestyle among their Primary School Children with Stunting

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Abstract

Background: Stunting is the impaired growth and development that children experience from poor nutrition, repeated infection, and inadequate psychosocial stimulation. Children are stunted if height for age is more than two Standard Deviations (SD) below the WHO child growth standards median. **Aim of the study:** This study aims to assess mothers' perception regarding health lifestyle among their primary school children with stunting. **Research design:** Descriptive research design was used to conduct this study. **Setting:** This study was conducted at Nasar Health Insurance Clinics in Shubra Alkhaymah at Qaluabiya Governorate. **Sample:** A purposive sample of 338 mothers had primary school children with stunting aged from 6 to 12 years old. **Tools:** Three tools were used to conduct this study. **Tool I:** Consisted of three parts. **Part I**: Socio demographic characteristics of mother and personal characteristics of primary school children with stunting. **Part II**: health problems of primary school children with stunting. **Part III**: Mothers' knowledge regarding stunting, **Tool II**: likert scale attitude of mothers. **Tool III**: Lifestyle patterns scale. **Results:** 37.9% had poor knowledge regarding stunting disease, 84% of primary school children with stunting have cardiovascular problem of anemia, and 86,1%, 82% of them have psychological problems, 57.4% of studied mothers had negative attitude about stunting, 59.2% of studied mothers had unhealthy lifestyle reported practices regarding their stunted primary school children. **Conclusion:** The present study revealed that majority of studied children have cardiovascular problem of anemia, psychological problems of feel upset and sad. Also, more than one third of the studied mothers had poor knowledge about stunting. More than half of mothers had negative attitude about stunting. While there were highly statistically significant relation between studied mothers total knowledge and their socio demographic characteristic And there were highly statistically significant relation between studied mothers total attitude level and their total knowledge. **Recommendation:** Develop and implement health educational program to improve mothers' knowledge and practices regarding their primary school children with stunting.

Keywords: Lifestyle, Mothers, Primary school children, Stunting.

Introduction

Primary school children wellness; include nutrition promotion, education, maintaining children's physical activity, teaching them how to express emotions through role play, challenging students to look at issues from multiple points of views, activities which help students define and be accountable to personal morals. Stunting is the impaired growth and development that children experience from poor nutrition, repeated infection, and inadequate psychosocial stimulation. Children are stunted if height for age is more than two Standard Deviations (SD) below the World Health Organization (WHO) child growth standards median. Short

stature is a condition in which the height of an individual is two standard deviations below the corresponding mean height of a given age, sex and population group. In medical terminology, it is known as dwarfism (**Rani et al., 2022**).

Violence in educational setting. Schools policy places healthy food, improved nutrition and physical activity high in priority on every school agenda, the success of this policy requires that schools work together with policymakers, parents and communities to create an environment where children eat healthfully, become physically fit and develop lifelong habits that contribute to wellness (**Hone & Quinlan, 2020**).

Dwarfism is broadly categorized into two types based on the patient's physical appearance, which are; Proportionate Short Stature (PSS) and Disproportionate Short Stature (DSS). PSS; means that the limbs and the trunk are proportionately small. The most common cause of PSS is being born to small parents, but it can sometimes occur as a result of the body not producing enough growth hormone, certain genetic syndromes, such as Turner syndrome and Prader -Willi syndrome, can also cause PSS. Whereas, DSS implies that the individual has a significant difference in their sitting and standing height, and either their trunk or extremities are small. DSS usually occurs as part of a genetic condition, such as achondroplasia. many children born with DSS have parents of average height and the faulty gene causing the condition occurred by chance (**Kugler, 2021**).

Optimal nutrition assist children to develop and grow in a harmonic way and become healthy adults. However, in situations of poor nutrition and environmental and maternal factors, children may be susceptible to malnutrition, poor growth, and possibly stunting A total of 21.3% of the children suffer from stunting globally, which represents approximately 144 million children. Furthermore, an estimated 17% of the mortality burden in children under 5 years old is associated with stunting (**Montenegro, 2022**).

Once growth hormone deficiency has been diagnosed, treatment for the disorder involves regular injections of human growth hormone (some children receive daily injections, while others receive injections several times a week). Treatment usually lasts several years, although results are often seen as soon as three to four months after the injections are started. The earlier the treatment for growth hormone deficiency is started, the better chance the child will have of attaining normal or near-normal adult height. However, not all children respond well to growth hormone treatment (**Ha, 2019**).

Mothers support is one of the keys to student success at school. "Family emotional support is beneficial for academic outcomes as it promotes psychological well-being and facilitates greater student engagement. Studies show that a family's engagement has a direct positive impact on a child's learning success and improvement. When families are engaged in children's school lives, students have the home support they need to develop a lifelong love of learning. Encouraging family engagement is more than common courtesy. It's one of the best strategies to create a positive learning environment for all students, and how to create a community built on family-teacher relationships in school (**Georgia**, **2020**).

Role of the CHN is promoting health and counseling with mothers this indicates that nurses play an important role in educating mothers and caregivers about signs and symptoms related to stunting, as well as counseling mothers towards appropriate

referrals and keeping appointments that have been made. As nurses execute their role in the overall monitoring of the general health, development and well-being of infants, families become more aware of typical growth and development. She should also explain the importance of the early intervention and detection of growth impairment is necessary to prevent additional problems and complication of stunting. A health care team approach is normally used when a child is diagnosed with some degree of growth impairment **(Doenges et al., 2019).**

Significance of the study:

Stunting has become a phenomenon that threatens more than 17% of primary school children in Egypt, and 10% of children suffer from severe short stature. Prevalence of stunting is high among primary school children in Egypt with a strong concurrence between anemia and stunting. Childhood stunting is a serious health problem in Egypt. In 2014, one in five Egyptian children was stunted, meaning that they were short for their age. That amounts to 2.1 million children, the largest number of stunted children in the Middle East and North Africa (MENA) region **(El-Shafie, 2020; World Health Organization (WHO), 2021).**

The number of students age blew 18 years in Egypt reached 38.9 million in 2018, making up 40.1 percent of the total population, the central agency for public mobilization and statistics primary education was at a far higher rate for both genders, with 95.4 percent of 6 to 11-year-old females enrolled in school, and 93.2 percent of males **(Central Agency for Public Mobilization and Statistics, 2018).** World population continues to grow, but the number of children in the world has now reached its peak. In 1960 there were 1 billion children below 12 years of age making 35% of the world population. Now there are 1,9 billion children in the world, but they are but 27% of world population. So, this study is important due to the stunting is the most common health phenomenon among primary school children so that this study is very important to provide them with adequate knowledge about the disease and encourage them to follow healthy life style **(Doenges et al., 2019).**

Aim of the study:

The aim of the study was to assess mothers' perception regarding health life style among primary school children with stunting.

Research Questions:

- What are the health problems of primary school children with stunting?
- What are the mothers' knowledge regarding stunting?
- What are the mothers' attitude regarding stunting ?
- What is the life style among primary school children with stunting?
- Is there a relation between socio demographic characteristics of mothers and their knowledge?
- Is there a relation between knowledge and attitude of mothers regarding their primary school children with stunting?

Subjects and method:

Research design:

A descriptive research design was utilized to conduct this study.

Setting:

This study was conducted at Nasar Health Insurance Clinics in Shubra Alkhaymah at Qaluabiya Governorate.

Sampling:

A purposive sample of 338 mothers have primary school children with stunting aged from 6 to12 years old attended to the above mentioned setting. The total number of primary school children with stunting attend to the previous setting in 2021 was (2200)

children so that the total sample according the equation was 338 mothers.

Tools for Data Collection: Three tools were used for data collection.

Tool I: A structured interviewing questionnaire: It was developed by investigator, based on reviewing related literatures, and written in Arabic language: It comprised of three parts to assess the following:

First part: Socio-demographic characteristics of the studied sample. This part included two items:

A- Socio demographic characteristics of mother. It consisted of eight items including; age, level of education, marital status, occupation, number of family members, type of family, residence and monthly income.

B- Personal characteristics of studied children which consisted of four questions including; gender, age, educational grade, rank in the family.

Second part: Concerned with health problems of primary school children with stunting. It consisted of nine items: problems of the skeletal system, problems with the lymphatic and endocrine system, problems of the cardiovascular circulatory system, problems of central nervous system, problems of respiratory system, problems of immune system, problems of urinary system, problems of hearing and psychological problems

Third part: Concerned with mothers' knowledge regarding stunting it consisted of sixteen items involving; meaning, causes, signs and symptoms, types, proportionate short stature, the causes of proportionate short stature, complications of proportionate short stature, disproportionate short stature, the causes of disproportionate short stature, complications of disproportionate short stature, methods of diagnosis of stunting disease, detection of stunting disease, the

treatment of stunting disease, ways to support the stunted child, the difference between dwarfism and short stature and the source of information about stunting disease.

- Scoring system:

Knowledge score for each answer was given as follows:

2 = Correct and complete answer

1 = Correct and incomplete answer

0 = Don't know answer

Total scores of knowledge=30

The total knowledge scores were considered good if the score of the total knowledge > 75 % (> 22), considered average if it is equals 50-75% (15-22), and considered poor if it is less than 50% (<22).

Tool II: Likert scale; was designed by the investigator to assess mothers' attitude toward their primary school children with stunting. It consisted of twenty questions divided into five categories (mother care and follow up (5 items), child's health status (2 items), mother support and psychological support (5 items), mother acceptance and feel proud (2 items) and mother felling regarding her children (6 items).

Scoring system:

A score for each answer on questions of attitude was given as follow:

2= Disagree

1= Sometimes

0= Agree

Total score of attitude= 40

The attitude was considered positive if the score of total attitudes > 60% (> 24), considered negative if it is < 60% (< 24).

Tool III: Life style patterns scale guided by **(Al-Shehri et al., 2017).**Which was adapted and modified by the investigator**.** It consisted of seven categories (nutrition 12 questions, sports 5 questions, sleep 4 questions, smoking 2 questions, personal hygiene 4 items, rest 3 items and recreation 4 questions).

Scoring system:

Practice score for each answer was given as follows:

2= Always

1= Sometimes

0=Never

Total scores of practices = 68

The total practice were considered Poor lifestyle when total score > 50% (0-34), average lifestyle when total score 50-75 %(34-51) and good lifestyle when total score <75% (51-68).

Reliability and content validity of the tools:

The investigator used tool reliability to test the tool's internal consistency by administering the same tools to the same subjects under similar conditions on one or more occasions. The results of repeated testing were compared (test-re-test reliability). five Faculty Staff Nursing experts from the Community Health Nursing Specialties reviewed the tools for clarity, relevance, comprehensiveness, and applicability and provided their opinions.

Ethical consideration:

Permission has been obtained orally from each mother before conducting the interview and given a brief orientation to the purpose of the study. They were also reassured that all information gathered would be confidential and used only for the purpose of the study. No names were required on the forms to ensure anonymity and confidentiality. They were also informed about their right to withdraw at any time from the study without giving any reasons.

Pilot study:

The pilot study was carried out on 10% (35 mothers) of the sample size who represented mothers from total sample to test the applicability and clarity of the tool for further required modification, and time needed to fill each sheet, completing the sheet consumed about 20- 30 minutes. No modifications were done, so the pilot study sample was included in the total sample.

Field work:

The studied mothers were interviewed individually using the previous tool in the predetermined setting. The actual filed work was carried out over a period of six months (from the beginning of March 2022 to the end August 2022). The investigator was available two days\week (Mondays, Tuesdays) from 9A.M to1P.M. in Nasar Health Insurance Clinics in Shubra Alkhaymah at Qaluabiya Governorate to collect data from mothers. The average time of interviewing each mother ranged between 20:30 minutes. The average number of interviewed mothers per day were between 7-9 mothers depending on their understanding and responses to the investigator. The mothers filled this questionnaire in the present of the investigator all time to clarify any ambiguities and answer any queries and collect the questionnaire.

Statistical analysis:

The collected data were organized, computerized, tabulated and analyzed by using the statistical package for social science (SPSS) version 25. Data was presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, mean and standard deviation for quantitative variables. Qualitative variables were compared using the chi-square test and correlation coefficient was used to measure the direction and strength of the correlation between variables.

Statistical significance was considered at:

P- Value > 0. 05. Not significance

P- Value < 0. 05. Significance

P- Value < 0.001. Highly significant

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Results:

Table (1): Shows that; 34 % of mothers were aged 30 >35 years old, with Min –Max 23-49, Mean ±SD (31.70±5.77), 38.5% of them were intermediate education Additionally, 82.8% of them were married, 60.7% of them not working and 60.7% of them had insufficient income\month.

Table (2): Shows that; 58.9% of stunted primary school children were male and 32.8% of them aged from 6 >7 years old with Min – Max 6-18, Mean ± SD 6.54±4.21. Additionally, 32.8% of them were the second child in the family.

Table (3): Shows that; concerning of the skeletal system;51,2%of stunted primary school children have no problem, while 84% of them have cardiovascular problem of anemia, and 86,1%, 82% of them have psychological problems of feel upset and sad, tendency to isolation and loneliness respectively.

Figure (1): Shows that; 29.6% of studied mothers had total good knowledge regarding stunting disease, while 32.5% had average total knowledge and 37.9% had poor total knowledge regarding stunting disease.

Figure (2): Illustrates that; 57.4% of studied mothers had negative attitude about stunting and 42.6% of mothers had positive attitude about stunting.

Figure (3): Illustrates that; 59.2% of studied mothers had unhealthy life style reported practices regarding their stunted primary school children and 40.8% of them had healthy lifestyle practices regarding their stunted primary school children.

Table (4): Reveals that; there were highly statistically significant relation between studied mothers total knowledge and their socio demographic characteristic regarding, age, educational level, marital status, family number, residence and, income and there were no statistically significant relation between studied mothers total knowledge and their socio demographic characteristics regarding occupation.

Table (5): Shows that; there were highly statistically significant relation between the total knowledge of studied mothers and their total attitude.

Table (1): Frequency distribution of studied mothers regarding their socio demographic characteristics (n=338)

Socio Demographic Characteristics of mothers	No	%
Age\years		
20<25	63	18.6
25<30	84	24.9
30 <35	115	**34.0**
>35	76	22.5
Min –Max	**23-49**	
Mean ±SD	**31.70±5.77**	
Education level		
Cannot read and write	35	10.3
Read and write	48	14.2
Basic education	44	13.0
Intermediate education	130	**38.5**
University education and above	81	24.0
Marital status		
Widowed	42	12.4
Divorced	16	4.8
Married	280	**82.8**
Occupation		
Housewife	205	**60.7**
Self-employment	133	39.3
Family number		
3 to 4 individuals	220	65.1
5 to 6 individuals	102	30.2
7 and more	16	4.7
Type of family		
Extended	163	48.2
Nuclear	175	51.8
Residence		
Rural	229	67.8
Urban	109	32.2
Income		
Sufficient	109	32.2
Insufficient	205	**60.7**
Sufficient and saves	24	7.1

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Table (2): Frequency distribution of studied primary school children regarding their personal characteristics (n=338)

Personal Characteristics	No	%
Gender		
Male	199	**58.9**
Female	139	41.1
Age\ years		
6 <7	111	**32.8**
7 <8	67	19.8
8 <9	51	15.1
9 < 10	59	17.5
10 <11	16	4.7
11≥12	34	10.1
Min –Max	**6-18**	
Mean ±SD	**6.54±4.21**	
School grade		
First	145	42.9
Second	48	14.2
Third	77	22.8
Fourth	34	10.1
Fifth	18	5.3
Sixth	16	4.7
Ranking in the family		
The first	101	29.9
The second	111	**32.8**
The third	51	15.1
Fourth and more	59	17.5
Single child	16	4.7

Table (3): Frequency distribution of stunted primary school children regarding their health problems (n=338)

Health Problems*	No	%
Problems of the skeletal system		
Deformity of the spine	17	5.0
Arching of the legs	98	29.0
Curvature of the spine	27	8.0
Arthritis	72	21.3
No problems	173	**51.2**
Problems with the lymphatic and endocrine system		
Disorders of the thyroid hormones triiodothyronine (T3) and thyroxine (T4)	118	34.9
Growth hormone deficiency (Somatotropin)	124	36.7
Imbalance in blood sugar level (diabetes mellitus)	42	12.4
No problems	54	16.0
Problems of the cardiovascular circulatory system		
Blood anemia	284	**84.0**
Weight gain	24	7.1
No problems	46	13.6
Central nervous system problems		
Problems with movement and activity	65	19.2
Learning difficulties	69	20.4
No problems	204	60.4
Respiratory problems		
Difficulty breathing during sleep	76	22.5
No problems	262	77.5
Immune system		
Frequent infection with colds	219	64.8
No problems	119	35.2
Urinary system problems		
Disorders of kidney function	58	17.2
No problems	280	82.8
Hearing problems		
Hearing problems	18	5.3
Recurrent infections of the ear	151	44.7
No problems	169	50.0
Psychological problems		
Feels upset and sad	291	**86.1**
Tendency to isolation and loneliness	277	**82.0**
Lack of self-confidence	254	75.1
Lack of social participation	247	73.1

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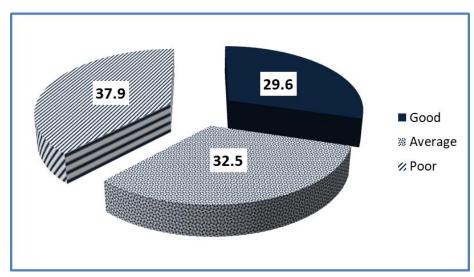

Figure (1): Percentage distribution of studied mothers regarding their total knowledge level regarding stunting disease (n=338).
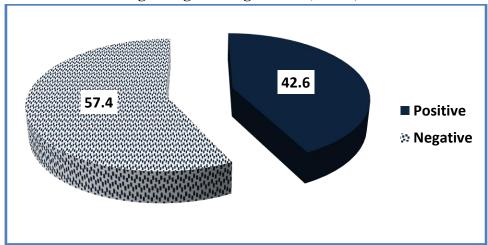

Figure (2): Percentage distribution of studied mother regarding their total attitude level (n=338).
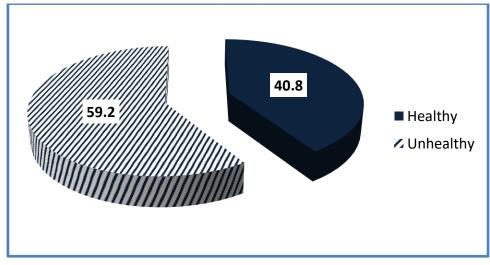

Figure (3): Percentage distribution of studied mother regarding their total lifestyle reported practices level (n=338).

Table (4): Statistically relation between socio-demographic characteristics of mothers and their total knowledge level (n=338).

Socio demographic characteristics	Total knowledge level						X^2	p-value
	Poor (n=128)		Average (n=110)		Good (n=100)			
	No.	%	No.	%	No.	%		
Age								
20<25	20	15.6	26	23.6	17	17.0	98.426	.000**
25<30	40	31.3	26	23.6	18	18.0		
30 <35	10	7.8	48	43.6	57	57.0		
>35	58	45.3	10	9.2	8	8.0		
Education								
Cannot read and write	33	25.8	2	1.8	0	0.0	162.425	.000**
Read and write	40	31.3	0	0.0	8	8.0		
Basic education	9	7.0	26	23.6	9	9.0		
secondary education	45	35.1	50	45.5	35	35.0		
University education and above	1	0.8	32	29.1	48	48.0		
Marital status								
Widowed	24	18.8	17	15.5	1	1.0	47.947	.000**
Divorced	16	12.4	0	0.0	0	0.0		
Married	88	68.8	93	84.5	99	99.0		
Occupation								
Housewife	70	54.7	68	61.8	67	67.0	3.659	0.16
Self-employment	58	45.3	42	38.2	33	33.0		
Family number								
Extended	85	66.4	78	70.9	57	57.0	36.853	.000**
Nuclear	27	21.1	32	29.1	43	43.0		
Urban	16	12.5	0	0.0	0	0.0		
Residence								
Rural	94	73.4	93	84.5	42	42.0	46.445	.000**
Urban	34	26.6	17	15.5	58	58.0		
Income								
Sufficient	20	15.6	41	37.3	48	48.0	62.157	.000**
Insufficient	108	84.4	61	55.4	36	36.0		
Sufficient and saves	0	0.0	8	7.3	16	16.0		

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Table (5): Statistically relation between total knowledge and total attitude among studied mothers (n=338).

	Total knowledge						X2	p-value
	Poor (n=128).		Average (n=110)		Good (n=100).			
	No	%	No	%	No	%		
Attitude								
Negative (n=194)	91	71.1	62	56.4	41	41.0	20.86	.000**
Positive (n=144)	37	28.9	48	43.6	59	59.0		

Discussion:

Children are stunted if height for age was more than two Standard Deviations (SD) below the WHO child growth standards median. One of the major causes of stunting is the lack of information of mothers about nutrition. Poor maternal height and education, premature birth, short birth length, nonexclusive nursing for the first six months, low household socioeconomic level, and nonexclusive breastfeeding were all significant risk factors for child stunting. Good knowledge and a positive attitude toward child nutrition and feeding practices, exposure to nutrition and health information, and a perception of oneself as healthy were maternal characteristics that were positively associated with healthy lifestyle practices for children (**Khomsan, 2022).**

The study aimed to assess mothers' perception regarding health life style among their primary school children with stunting. It was discussed under five main sections; socio demographic characteristics of mothers and personal data of primary school children with stunting, health problems of primary school children with stunting, mothers' knowledge regarding stunting, mothers' attitude toward their primary school children with stunting and health life style of primary school children with stunting.

According to socio demographic characteristics of the studied mothers, the current study showed that, more than one third of the studied mother's aged; from 30 >35 years with Min –Max 23-49, Mean ±SD31.70±5.77, the current study also revealed that three fifth of studied mothers had no occupation and had insufficient income**.** These finding agreed with **Modjadji, (2021),** who studied" Engaging mothers on the growth of school-age children in a rural south African health and demographic site; South African "(n=54), reported that 38.9% of studied mothers was aged less than 35years, 83,3% had no occupation. These study findings also supported by **Dusingizimana, (2021**) who studied "An investigation of factors associated with child stunting in northwest Rwanda : The role of care practices related to child feeding and health, New Zealand "(n=379) and found that, the highest proportion of mothers 90% aged less than 35 years old and 50% had no occupation.

According to personal characteristics of studied children, the current study showed that, more than half of studied children were males, less than third of children aged 6 >7 years old with mean age was Min – Max 6-18, Mean ± SD 6.54±4.21, these findings agreed with **Argaw et al., (2022)**, who studied "Stunting and associated factors among primary school children in Ethiopia: School-based cross-sectional study "(n=500), reported that 51.6% were males, 36,2% aged 6years. On the other hand, while the finding of the present study were contradicted with **Nur et al., (2021)**, who studied "The relationship of Iodine Deficiency Disorder (IDD) and stunting with cognitive development in elementary school children in Enrekang Regency" (n=100), found that 31% of children was aged 10 years old.

Majority of studied children had cardiovascular problem of anemia, and this agree with **Getaneh, (2019).** Who studied" Prevalence and determinants of stunting and wasting among public primary school children in Gondar town, northwest, Ethiopia"(n=523), reported that 95% of children have anemia. While the previous results disagreed with **Lwambo, (2020),** who studied "Age patterns in stunting and anaemia in African schoolchildren: a cross-sectional study in Tanzania. "(n=6100), reported that 62.6% of children have anemia.

Concerning total mothers' knowledge about stunting, the study results revealed that less than third of the studied mothers had good knowledge about stunting. This study findings were in disharmony with the study done by **Malonda (2022),** who studied "History of exclusive breastfeeding and complementary feeding as a risk factor of stunting in children age 36-59 months in Coastal Areas, Sitaro Regency" (n= 204), found that the majority of mothers 91% had good knowledge about stunting, this might be due to lack of knowledge about stunting especially in social media, the lack of information on stunting for all segments of society and spreading awareness of the importance of following up on the health status of children.

Concerning total mothers' attitude regarding stunting revealed that; more than half of mothers had negative attitude about stunting and approximately two fifths of them had positive attitude about stunting. This study result was consistent with **Putri et al, (2022),** who studied "Oral health attitude with the socioeconomic conditions of mothers with growth stunting children. Bandung" (n=35), reported that 60% of mothers had negative attitude and 40% of mothers had positive attitude about stunting, this might be related to mothers level of education. Mothers' attitudes depend on several factors, such as the level of culture, education and the standard of living.

The study also showed that slightly less than three fifths of studied mothers had unhealthy lifestyle practices regarding their stunted primary school children and two fifths of them had healthy lifestyle practices regarding their stunted primary school children. The study was in the same line with **Marzouk et al., (2021)**. Who studied "Prevalence and association of malnutrition with lifestyle practices of primary school children in Assiut City, Egypt" (n= 850), revealed that 69.4% of studied mothers had unhealthy lifestyle practices**.**

The study showed that; there were highly statistically significant relation between studied mothers total knowledge and their

socio demographic characteristic regarding, age, educational level, marital status, family number, residence and, income and there were no statistically significant relation between studied mothers total knowledge and their socio demographic characteristics regarding occupation. These findings supported with **Modjadji., (2021),** who reported that there were highly statistical significant relation between socio demographic characteristic and educational level.

Concerning relation between the total knowledge of studied mothers and their total attitude there were highly statistically significant relation. The study was supported by **Rato, (2022**), who revealed that there was highly statistically significant relation between total mothers' knowledge and attitude.

Conclusion

The present study revealed that majority of studied children have cardiovascular problem of anemia, psychological problems of feel upset and sad. Also, more than one third of the studied mothers had poor knowledge about stunting. More than half of mothers had negative attitude about stunting. And slightly less than three fifth of studied mothers had unhealthy lifestyle reported practices regarding their stunted primary school children. While there were highly statistically significant relation between studied mothers total knowledge and their socio demographic characteristic regarding, age, educational level, marital status, family number, residence and, income. And there were highly statistically significant relation between studied mothers total attitude level and their total knowledge.

Recommendations:

1. Develop and implement health educational program to improve mothers knowledge and practices regarding their primary school children with stunting.
2. Stress management and assertiveness training program should be given to stunted primary school children to relieve their psychological problems and enhance their coping patterns.
3. Disseminate booklet with illustrated pictures included all information and care measures towards stunting to inform mothers about importance of follow up and change their life style and follow healthy diet.
4. Mothers and family at all involvement can also help the children to come out of any distress. Family must show acceptance to the appearance of stunted primary school children and not critique to them.
5. Further studies needed to be applied the same study in large sample size in different setting in Egypt.

References

Al-Shehri, H., Al-Qahtani, A., Shaikh, I. and Hassan, M. (2017). Assessment of Lifestyle and Eating Habits among Undergraduate Students in Najran University, Najran, Saudi Arabia. Intenational Journal of Medical Science and Public Health, 6(3): 7-9.

Argaw, D., Kabthymer, R., Endale, T., Wudneh, A., Meshesha, M., Hirbu, J. and Molla, W. (2022). Stunting and associated factors among primary school children in Ethiopia: School-based cross-sectional study. International Journal of Africa Nursing Sciences, 17, 100451.

Central Agency for Public Mobilization and Statistics (CAPMAS) – CC. (2018). Children make up 40.1 Percent of Egyptian Population (online) Available at: http://www. egypttoday.com/Article/1/ 60713/Children-make-up-40-1-percent-of-Egyptian-

population-CAPMAS. Accessed on25\9\2022,at 5am.

Doenges, E., Moorhouse, F. & Murr, C. (2019). Nursing care plans: Guidelines for individualizing client care across the life span. FA Davis.

Dusingizimana, T. (2021). An investigation of factors associated with child stunting in northwest Rwanda: the role of care practices related to child feeding and health: a thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Nutritional Science, College of Sciences, Massey University, Palmerston North, New Zealand (Doctoral dissertation, Massey University.

El-Shafie, A., Kasemy, Z., Omar, Z., Alkalash, S. Alkalash, A., Mahrous, K., Hewedy, S., Kotb, N., Abd El-Hady, H., Eladawy, E., Zeid, M., Abd El Hamid, M., and El-Meligy, E. (2020). Prevalence of Short Stature and Malnutrition among Egyptian primary School Children and their coexistence with Anemia, .Italian Journal of Pediatrics,46:91, Available at https://ijponline.biomedcentral. com/articles/10.1186/s13052-020-00855-y. Accessed on 7\3\2022at 6am.

Georgia, A. (2020). The Importance of Parental Support, available athttps://www.gcsu.edu/sites/files/page-assets/node-281/attachments/georgia_college_and_state_university_campus_link_february_2020.pdf

Getaneh, Z., Melku, M., Geta, M., Melak, T., and Hunegnaw, M. (2019). Prevalence and determinants of stunting and wasting among public primary school children in Gondar town, northwest, Ethiopia. BMC pediatrics, 19(1), 1-11.

Ha, A., (2019). Everything you need to know about short stature, health line, https://doi.org/10.1002/lim2.67

Hone, L., and Quinlan, D. (2020). The educators guide to whole-school wellbeing: Apractical guide to getting started, Best practice process and effective implementation (1st ed.)NewYork.P293.

Khomsan, A. (2022). Maternal Nutritional Knowledge as a Determinant of Stunting in West Java: Rural-Urban Disparities, Available at

file:///C:/Users/NOUR.NET/Downloads/2.ENG+39793_Anna+Vipta+Resti+Mauludyani+RS+8-12.pdf.

Kugler, M. (2021). The Most Common Types of Dwarfism, very well health, available at https://www.google.com/search?q=the+most+common+types+of+dwarfis

Lwambo, N., Brooker, S., Siza, J., Bundy, D., and Guyatt, H. (2020). Age patterns in stunting and anaemia in African schoolchildren: a cross-sectional study in Tanzania. European journal of clinical nutrition, 54(1), 36-40.

Malonda, N., Kawatu, F., and Sanggelorang, Y. (2022). History of Exclusive Breastfeeding and Complementary Feeding as a Risk Factor of Stunting in Children Age 36-59 Months in Coastal Areas. History, 70.

Marzouk, S., El-sayed, Y., Medhat, A., El-Asheer, O., Mohmoud, T., Mohamed, A. (2021). Prevalence and Association of Malnutrition with Lifestyle practices of Primary School Children in Assiut City, Egypt, Egyptian Journal of Health Care, Volume 12, Issue 1.

Modjadji, P. (2021). Engaging mothers on the growth of school-age children in a rural south african health and demographic site: a qualitative insight. In Healthcare (Vol. 9, No. 2, p. 225). MDPI.

Montenegro, C. (2022). The pediatric global burden of stunting: Focus on Latin America, on line library, https://doi.org/10.1002/lim2.67

Nur, Z., Nurhaedar, J., Aminuddin, S., Veni, H., Abdul, S., and Razak, T. (2021). The Relationship of Iodine Deficiency Disorder (IDD) and Stunting with Cognitive Development in Elementary School Children in Enrekang Regency. NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal| NVEO, 14201-14207.

Putri, N., Setiawan, A., and Setiawan, A. (2022). Oral Health Attitude with the Socioeconomic Conditions of Mothers with Growth Stunting Children. European Journal of Dentistry.

Rani, D., Shrestha, R., Kanchan, T., and Krishan., K. (2022). Short Stature, National Library of Medicin, available at https://scholar.google.com/scholar?as_ylo=2022&q=short+stature+national+library+of+medicine&hl=en&as_sdt=0,5

Rato, K. (2022). Relationship of Knowledge and Attitude with Mother's Actions on Stunting Incidents in Wali Ate Village. Science Midwifery, 10(4), 2942-2947.

Word Health Organization (WHO)(2021): The UNICEF/WHO/WB Joint Child Malnutrition Estimates (JME) group released new data for 2021,Available at https://www.who.int/news/item/06-05-2021-the-unicef-who-wb-joint-child-malnutrition-estimates-group-released-new-data-for-2021

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معرفة الأمهات فيما يتعلق بأسلوب الحياة الصحي بين أطفالهن في المدارس الابتدائية المصابين بالتقزم

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تحدد منظمة الصحة العالمية منحنيات النمو العالمية التي تظهر المسار المتوقع لنمو الطفل من الولادة وحتى مرحلة البلوغ بالطبع لا تتوقع أن يكون الجميع بنفس الطول بالضبط ، فهناك مجموعة من العوامل ، مثل الوراثة ، التي تؤثر على الطول وليست انعكاسا لسوء الصحة أو سوء التغذية. وبالتالي فإن منحنيات النمو هذه تمتد على نطاق من الارتفاعات. هذا النطاق هو انحرافان معياريان أعلى وأسفل المتوسط الطفل الذي يقع ارتفاعه اقل من انحرافين معياريين أقل من الطول المتوقع لعمره يعرف بأنه "متقزم". لذا هدفت هذه الدراسة إلى تقييم معرفة الامهات لنمط الحياة الصحية بين أطفال المدارس الابتدائية المصابين بالتقزم. وقد أجريت هذه الدراسة في عيادات نصار للتأمين الصحي في شبرا الخيمة بمحافظة القليوبية. وتم إختيار عينة ملائمة من ٣٣٨ من الامهات التى لديهن اطفال مصابين بالتقزم فى مرحلة التعليم الابتدائى . وكشفت النتائج ان لدى ٢٩,٦٪ من الأمهات الخاضعات للدراسة لديهن معرفة جيدة بالتقزم و ٣٢,٥٪ لديهن معرفة متوسطة بينما ٣٧,٩٪ لديهن معرفة ضعيفة بمرض التقزم. ٥٧,٤٪ من الأمهات الخاضعات للدراسة كان لديهن اتجاهات سلبية من التقزم بينما ٤٢,٦٪ من الأمهات الخاضعات للدراسة أظهرن مواقف إيجابية تجاه مرض التقزم. توجد علاقة ارتباطية ذات دلالة إحصائية بين المعرفة الكلية والموقف الكلي والممارسات الكلية للأمهات الخاضعات للدراسة. كما أوصت الدراسة بتطوير وتنفيذ برنامج تثقيف صحي لتحسين معرفة الأمهات وممارساتهن فيما يتعلق بأطفال المدارس الابتدائية الذين يعانون من التقزم.