

KNOWLEDGE OF SAUDI MOTHER TOWARD DEVELOPMENTAL MILESTONES

Khalid Saad Farhan Alotaibi, MashaelAbdulkareemAlmwalad, WaleaThefullah Mohamed Ateah, MoeedahHadi Ahmed Asiri, Shatha Adel YeslamBawazeer, Faisal Ali AmerAsiri, Amena Mohamed Alhawsawi, Mohammed Hadi Alfahmi², Raed Hamad Alsulami³, Salman Matooq Alsamairi¹

¹Nursing technician, MOH MAKKAH, Saudi Arabia.

²Pharmacist technician, MOH MAKKAH, Saudi Arabia.

³Anesthesia technician, MOH MAKKAH, Saudi Arabia.

Background

Developmental milestones are a collection of objectives or indicators that a child is supposed to perform during development period. These are classified as gross motor, fine motor, verbal, cognitive, social-emotional, and behavioral. Monitoring and recognizing developmental milestones can assist providers in diagnosing delayed development more accurately, allowing for early intervention and improved results[1].

The term "developmental delay (DD)" refers to a delay in attaining baseline milestones in the 5 developmental domains[2]. Early DD is associated with poor attention and behavioral issues in infants and low academic performance in school-aged children, with future mental, emotional, social, and economical implications as these children mature into adolescence [3].

Additionally, researches have proven that good parenting is contingent on mothers' knowledge of child development, as mothers who understand how to promote their children's growth will have more favorable results [4]. On the other hand, insufficient understanding results in erroneous expectations and an overestimation of the rate of growth, frequently manifesting as impatience or intolerance toward the child's behavior [5, 6].

Parents often desire to participate in assessing and supervising their child's growth [7], and they get varying degrees of information and instruction in order to fulfill this role. While it is obvious that parents have a patchwork understanding of children development, little is known about their degree of knowledge and the factors that impact it[8].

The types of information that parents have access to and the reliability of the sources remain unknown. 'There is conflicting data in the literature about parental understanding of child development' [9]. Additionally, there have been no local research on this issue in Saudi Arabia to far, indicating that this study will fill a critical need. This study is determined forevaluating the level of knowledgeof motherstowards developmental milestones.

Methods:

Study design and sample:

A descriptive cross-sectional study that was conducted in Makkah from June 2019 to October 2019.

Study population and sample size:

The study included 400 mothers who were included from 3 different health care centers that was chosen randomly then a minimal sample size of 385 participants was estimated using a 95 percent confidence level with a 5% absolute accuracy and an anticipated prevalence rate of 80% [10]. The inclusion criteria were Saudi mothers, having at least one child aging from birth to 10 years.

Study tools and data collection:

The study is based on a questionnaire sheet that was published online and the link was distributed among the mothers admitting to the 3 health care centers. The questionnaire was a refined version of a verified survey that had been used to assess American parents' management expertise [8]. The child development parts of the questionnaire were derived from a freely accessible list of items compiled by the researchers of a comparable research[11].

Because the questionnaire was originally developed in English, it was translated into Arabic by two bilingual expert translators and then returned to English, where it was verified for meaning and content correctness by a pediatrician and a family physician. Following that, it was pretested on ten individuals. The questionnaire had 23 items pertaining to developmental milestones across four developmental areas. Twenty-one questions examined how parents obtained information about child growth and their level of satisfaction with each resource [12].

Ethical approval:

Each subject provided informed permission. Permission was given by the hospital's medical health committee.

Statistical analysis:

IBM SPSS software for Windows version 21.0 was used to gather and analyze all data. P-values less than 0.05 were statistically significant.

Results:

Demographics of the studied subjects:

A number of 400 in the present study with about 44% at the age of 25-35 and 32% were from 35-45 years old (Table 1). The majority were married (92%), had bachelor degree (67%), over half of them were not working. Most of them had 3 children (21%) followed by 21% had 2 children while the rest has between 4 to 6 or more children.

Table (1): Demographics of included mothers:

25		
5-35		
5-45		
45		
Marital status		
Married		
Unmarried		
Level of education		
Literate		
High school or Less		
Bachelor degree		
Postgraduate		
Employment		
Work		
Not work		
Monthly income (SR)		
5000		
000-10000		
0000-15000		
15000		
Number of children		
4 or more		

Knowledge of the mothers:

In terms of motor milestones, 90 percent of the moms were aware of when their children would be able to sit and balance on their own, 75% were aware of the ability and time to reach for objects, 76 percent were aware of when their children would be able to crawl on the floor, 62% knew that dressing themselves as a milestone, and 66% turns their heads toward sound and 54% walks alone holding wall or furniture. In contrast, 59 percent misjudged when a youngster could pull himself to stand by holding onto furniture, and 67 percent misjudged when a child could regulate and keep their head up without assistance.

Most of mothers either underestimated or properly predicted cognitive milestones, with 67 percent believing that the time at which children can copy a line. Most of the mothers knew when a child could count (75%), 60% were aware of the ability of the kid to follow instructions, 53% knew when a child could imitate actions.

In terms of social milestones, 75 percent of moms underestimated the age at which a kid demonstrates a sound in response to other sounds, 95% missed the time when a child could show empathy, 70% didn't know about the activity of sharing toys and 79 percent missed the age when a child has closest friends.

The majority of the emotional milestones asked resulted in overestimations, particularly when it came to children demonstrating independence, with 86 percent of moms stating that this happened later than 12-18 months after the child was born. Also, 66% overestimated the time when the child could bond with their caregivers and 57 had less knowledge about recognizing emotions of the others.

Table (2): knowledge of mothers.

	t		ect		uare	
						e
rts own head upright with good control.						
for Objects					0	
over from back to stomach						
thout support with good balance					0	
himself or herself to stand up using furniture.						
s across the floor on hands and knees					0	
alone while holding the wall or furniture.						
Themselves						
head when he or she hears a sound						
es simple actions like clapping and waving						
Simple Instructions						
a line with a crayon on paper						
Counting					0	
sounds in response to another person's voice					0	
es upset when caregiver leaves the room or home						
l Play						
Toys						
Best Friends					0	
Empathy					0	
ential Crie						
with Caregiver						
nize Others' Emotions						
ndependence					0	

Knowledge score:

The knowledge level was highamong (2.5%), average among 52.5% and weak among 45% (Table. 3, Fig.1).

Table (3): knowledge score:

knowledge			uare	
				e
ge				
				*
	SD	±3.305		

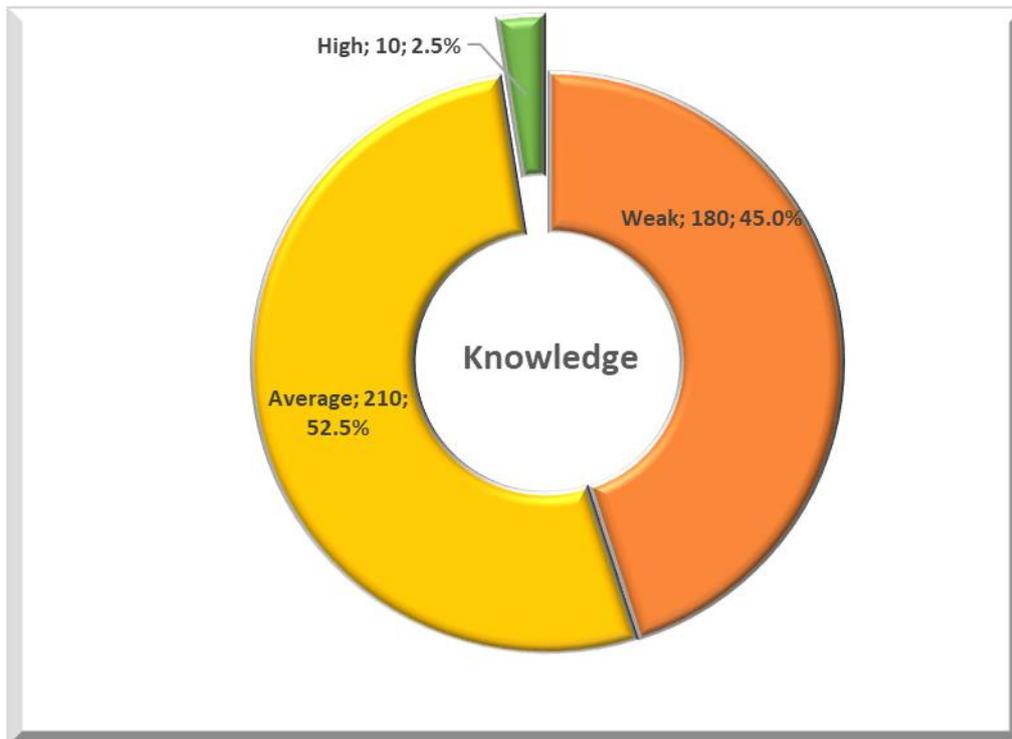


Fig. 1: knowledge score

The relation between the demographics with knowledge of included subjects:

The higher knowledge score was significantly related with the number of children and high educational levels.

Table (4): Relation between different studied basic demographic data and knowledgescore.

		knowledge	A or T-test	
			value	significance
Marital status	Married			
	Unmarried			
Level of education	High school or Less		6	*
	College or degree			
	Postgraduate			
Employment status	Work			
	Unemployed			
Monthly income (SR)	0-10000			
	10000-15000			
	15000-20000			
Number of children	0		5	*
	1			
	2			
	More than 2			

Discussion

It has long been established that mothers' knowledge and understanding of early childhood development are critical to the well-being of their children, their parents, and community as whole. Because parental expectations of a child's behavior will be shaped by what mothers in Saudi Arabia recognize regarding developmental milestones, this study focuses on what mothers in Saudi Arabia recognize concerning developmental milestones. This will severely influence developmental outcomes as well as the type of bringing up children acquires[13].

According to the findings of the study, the majority of mothers do not have a good knowledge of developmental milestones but only average knowledge among half of them and low knowledge among 45% and are consequently unable to assist their children in attaining them. As evidenced by the literature, there is a knowledge deficit in the areas of developmental milestones and the role of the social environment on infants' development [14, 15].

According to this study, the majority of moms accurately answered questions on motor abilities. In contrast to Safadi et al., findings on developmental milestone awareness in Jordan, revealed that many mothers were completely aware of cognitive milestones, while others underestimated when they should be attained. The lowest knowledge score was for social milestones, which the majority of respondents underestimated[9]. Adults have a poor understanding of developmental stages, with 63%, 15%, and 7% correctly answering most questions on physical, cognitive, and social development, respectively[4].

Studies have indicated that women who overestimate the time it would take their kid to achieve developmental abilities may have negative reactions to their actions, which may put the child at danger of maltreatment. Mothers who underestimate developmental milestones may fail to give their children with the stimulation and support they require for these abilities to develop, and they may also fail to detect or report major delays to health-care providers. According to the findings of this study, a significant number of knowledge milestones were either overestimated or underrated by mothers in Saudi Arabia.

The level of knowledge was significantly related to the higher number of children and higher educational levels. In the same respect, when it comes to development, mother would connect and excite her child more in order to boost the developmental result of her child[16].

A large number of research published in medical literature have demonstrated that education has a substantial relationship with knowledge of one's own health and health-related concerns. In addition, it has been demonstrated that low mother educational attainment is a predictor of children's health and development [5]. Additionally, there was a substantial correlation between mother's understanding of developmental milestones for children and the number of delivered babies[17].

The study used a limited sample of mothers from only three healthcare centers in Makkah thus its findings cannot be generalized across Saudi Arabia. Nonetheless, the study focused on a hospital that handles patients from around the country, and data were acquired from a variety of departments, extending the research's sociodemographic base.

Conclusion:

This study showed a moderate to low level of knowledge regarding developmental milestones. Also, recognition of the developmental milestones for kids under the age of five years is essential and can be utilized to monitor children's growth, particularly in rural regions. It is helpful to ascertain early on if a developmental issue actually exists and to delineate the extent of related deficiencies. Then, a comprehensive service structure for early intervention is given.

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