

# The Influence of Sociocultural Factors on Shared Reading in Jordan.

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## Research Article

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## Abstract

**Background:** Shared reading has many benefits to children's language and literacy development. The practice of shared reading varies widely among different cultural groups and is influenced by sociocultural factors. Promotion of shared reading in the healthcare setting has been shown to be effective in many western countries. Very little data are available from other nations, particularly those in the Middle East about parental experiences and attitudes towards shared reading with children. The aim of this study was to explore sociocultural factors that influence shared reading with children in Jordan, a low-middle income Arabic speaking country.

**Methods:** We used survey methodology to collect information on shared reading from a sample of parents of children 3-8 years of age presenting to the Jordan University Hospital Pediatrics clinic in Amman, Jordan. Data were also gathered through solicitation of narrative unstructured comments from parents. Qualitative and statistical data analysis were performed.

**Findings:** Mothers universally believed that shared reading is beneficial for children. However, only a small minority (16.4%) reported reading to their children daily. Shared reading behaviors correlated with frequency of mothers' personal reading and with the number of books in the home. Mothers indicated a preference for culturally appropriate books, written in classical Arabic and books having a moral or a lesson. Barriers to shared reading included a perceived lack of encouragement of this practice from society and schools and lack of access to books and public libraries.

**Discussion:** Promotion of shared reading is an effective way to enhance the literacy of children from varying ethnic and cultural backgrounds and represents an opportunity to reduce health disparities worldwide. Understanding regional sociocultural dynamics is an essential factor in planning successful interventions to promote literacy. We identified barriers to reading as well as cultural values that may be leveraged to enhance shared reading in Jordan.

## Introduction:

The advantages of early shared reading on language, cognitive and socio-emotional development of children are well documented.(1-7) Shared storybook reading is associated with better emerging literacy skills, school readiness, reading proficiency and academic success.(8-10) Shared reading also promotes positive interactions between parent and child. (11) It has been proposed that shared book reading models problem solving and interaction behaviors that children can connect to emotionally, thereby enhancing their socioemotional and behavior prediction skills. (12)

Literacy is also strongly linked to health outcomes. Poor literacy in parents or children are associated with worse child health outcomes. (13, 14) The role of health professionals in health promotion generally is closely tied to their role in enhancing literacy. (15-17)(18) The efficacy of literacy promotion by pediatricians is supported by many studies.(16, 19-25)

The home literacy environment has been defined as a multidimensional construct that includes attitudes and practices within the home that promote literacy related interactions. These include shared reading and book ownership. (26) Book ownership and the practice of shared reading vary widely between societies. A report by UNICEF on inequities in early childhood development explored rates of book ownership and shared reading in 37 countries. They found that while income was associated with shared reading, the differences in rates of shared reading between countries were far more pronounced than were accounted for by income levels.(27) Other studies more directly point to cultural factors as being important drivers of differences in rates and types of reading behaviors in different societies.(28, 29) These factors are thought to include differences in cognitive patterns and the social value that society assigns to reading. Socio-culturally mediated differences in parent-child interactions have also been found to affect the engagement of children in storybook reading.(30, 31)(30)(29)(28)

Little is known about rates and patterns of shared reading in Arab countries. Arabic is the official language of 19 countries and is used by as many as 420 million people, making it the sixth most spoken language in the world.(32)

Jordan is an Arabic-speaking Low-Middle Income Country (LMIC) country that boasts a literacy rate of over 98% for both males and females. Around a third of the population in Jordan (34.7%) is under 14 years of age. (33)

Little is known about the practice or patterns of shared reading in Jordan.

This study aimed to investigate the practice of shared reading in Jordanian society and to identify local sociocultural factors that influence shared reading.

## **Methods:**

### **Study design**

We used mixed methods to collect information from a convenience sample of parents visiting the Jordan University Hospital (JUH) Pediatric Clinics in Amman, Jordan. JUH serves a socioeconomically diverse population in the Amman metropolitan area, which has a population of around 2 million inhabitants. JUH also serves as a referral center for specialty pediatric care and receives referrals from across the country.

A survey was administered to the parents by one of the researchers, (SB). Qualitative data was collected by inviting unstructured input or comments by the parent at the end of each question. The study protocol was approved by the University of Nebraska Medical Center Internal Review Board and by the Jordan University Hospital Research Review Committee.

## **Participants:**

Parents of children ages 3–8 years visiting the clinic were recruited. Verbal consent was obtained from the parents after the study was explained to them. Parents were provided with an information sheet about the research.

## **Procedures:**

The survey was developed in Arabic by the authors AN, SB, BA, SK, LN and EB (all of whom are bilingual). The survey explored the parents' attitudes and experiences regarding reading to children. Demographic information was also collected. We based the validation of the survey on the principles described Boateng et al (34). We also tested the internal consistency of relevant questions using Cronbach's alpha. This was found to be in the acceptable range of > 0.6. Parents were recruited from the General Pediatrics clinic at Jordan University Hospital between September 1-December 31, 2019. SB a native Arabic speaker approached parents in the waiting room. He explained the study purpose and procedures to those who indicated interest, including the voluntary nature of participation. The researcher then administered the survey to the parents, all of whose first language is Arabic. The survey took an average of 12 minutes to complete, and each parent was then given a children's book to take home.

## **Statistical analysis**

A sample size of 300 parents was calculated to produce a two-sided 95% confidence interval with a width equal to 0.116 when the sample proportion was 0.500.(35) Descriptive statistics (counts and percentages, means, standard deviations, medians, minimums and maximums) were used to summarize the data. The Chi-square test or independent sample test,

as appropriate to the data, was used to look at associations between demographic variables and daily reading to children. Variables significant at the  $< 0.15$  level in univariate analysis were included in a multivariable logistic regression model. For the multivariable analysis, a backward selection method was used to determine the best subset of variables associated with daily reading. This method involved running a full model with all the predictors first and then sequentially removing factors that were least associated with the outcome until only variables significant at the  $p < 0.10$  level were left in the final model. SAS version 9.4 was used for the analysis and a p-value  $< 0.05$  was considered statistically significant.

## Results:

305 mothers completed the survey. Only two parents declined participation, citing time constraints. 89 mothers provided narrative comments.

Descriptive data: The demographic data is shown in Table 1. All the participants were mothers, consistent with the cultural norm in Jordan where mothers assume the majority of childcare responsibilities, including education and doctor's visits.

More fathers than mothers had at least a four-year college education (54.4% vs 22.6%  $p = 0.001$ ). However, the majority of mothers (70.1%) reported having at least a 2-year tertiary education (community college diploma or university). National statistics report that 37% of males and 31% of females in Jordan have attained tertiary education.(33)

In our study 34.2% of mothers reported being employed outside the home, compared to national employment rates for women of 22%.

Most households were middle- to low-income, with only 11.5% making over 1000 Jordanian dinars JOD; (1400 USD) per month (the average household income in Jordan is JOD 445 equivalent to 637 USD per month).

Table 1  
Participant demographics.

<b>Demographic variable</b>		
Child's age	Mean: 5.3	Range: 3–8
Gender M:F	N = 137:168	44.9%:55.1%
Mother's age	33 years	19–49
Number of children in the house	3 years	1–9
Mother's marital status: Married	N = 292	95.7%
Mother's employment: employed	N = 104	34.1
Household income	n	%
<JOD 500	121	39.7
500–1000	148	48.5
> 1000	35	11.5
Mother's education	n	%
Elementary school	7	2.3
Secondary school	85	27.9
Community college	144	47.2
University degree	47	15.4
Graduate or professional degree	22	7.2
Father's education	n	%
Elementary school	19	6.2
Secondary school	84	27.54
Community college	33	10.8
University degree	125	41
Graduate or professional degree	44	14.3

As shown in Table 2, 45.5% of households reported having less than 10 books in the home other than schoolbooks, and 57.1% had fewer than 10 children's books. In contrast, 99.9% of households had at least one television set and one smartphone. 94.5% of households had at least two smartphones.

Mothers almost universally (98%) agreed that reading is beneficial for children, and the majority (69.8%) reported helping their children with schoolwork daily. However, only 16.4% reported reading to their children daily. Additionally, mothers reported little personal reading of books (6.2%), newspapers or magazines (11.2%) daily compared to 48.2% who reported reading articles on the Internet. The majority of mothers also reported higher than recommended screen time exposure and low levels of physical activity for their children.

Table 2  
Home literacy environment

<b>Home literacy Environment</b>	<b>N</b>	<b>%</b>
Number of books in the household other than school books	34	11.2
No books	102	33.4
Less than 10 books	109	35.7
10–50 books	60	19.6
More than 50 books		
Number of Children's books in the household other than school books	37	12.13
Do not have any books	137	44.9
Less than 10	113	37.0
10–50	18	5.9
More than 50		
Number of Screen devices in the household	304	99.6
One or more TV sets	199	64.3
One or more computers	304	99.6
One or more smart phone	288	94.1
2 or more smart phones	132	43.3
One or more electronic tablets		
X box or play station	64	21.0
Automatic washing machine	278	91.5
Mother's activities and attitudes	19	6.2
Read books or magazines daily		
Read articles on the internet daily	147	48.0
Read to their child daily	50	16.4
Help their children with school work daily	213	69.8
Believe that reading is beneficial to children	299	98.0
Do not have time to read for self	137	44.9
Do not have time to read to children	65	21.3
Children's books are too expensive	62	20.3
Prefer television	68	22.3
Child activities by mother's report		
Watches television more than one hour a day	188	61.6
Plays games on electronic tablet	175	57.4
Plays outdoors less than one hour per day	179	58.7

Home literacy Environment	N	%
Does homework more than one hour per day	146	55.3
Reads more than one hour per day other than homework	18	5.9

The factors that were associated with daily, shared reading on univariate analysis were: the number of books at home ( $p = 0.0004$ ), the number of children's books at home ( $p = < 0.0001$ ) and mother's educational level ( $p = 0.0062$ ), mother helping children in the home with homework, ( $p = 0.007$ ), and mother personal reading ( $p < 0.0001$ ). Father's education, household income, child's gender, number of children in the household, number of hours watching TV or playing videogames, or playing outdoors were not associated with shared reading (Table 3).

On multivariable analysis, the factors that were independently associated with shared reading included: number of children's books in the home, mother's education, help with homework, and mother's personal reading. Table 3

Table 3  
Multivariate analysis of factors found to be associated with shared reading on univariate analysis.

Factor	Odds Ratio	95% Wald Confidence Limits		p-value
		Wald	Confidence Limits	
Child books in home: $\geq 10$ vs $0/\text{less than } 10$	5.26	2.39	11.56	< .0001
Mom education:	2.14	0.87	5.24	0.097
Community college/BA/Grad/professional degree vs $\leq$ Secondary school				
Help with homework: Daily vs < daily	0.32	0.16	0.67	0.0025
Mom personal book reading: $\geq$ once weekly vs Did not do	2.65	1.33	5.28	0.0058

The odds of daily shared reading were 5.26 times higher if there were more than 10 children's books in the home and 2.65 times higher if the mother regularly engaged in personal reading. The mother's post-secondary education increased the odds of shared reading by 2.1 times and approached but did not reach statistical significance as an independent variable associated with shared reading ( $p = 0.097$ , CI 0.87–5.242). Notably, helping the child with homework correlated inversely with shared reading ( $p = 0.0025$ ). The odds of shared reading were 0.32 if the mother assisted with homework daily compared to those who provided less assistance with homework.

#### Narrative comments

89 of the 305 mothers provided narrative comments at the end of the survey. The comments were analyzed using a phenomenological and iterative process. Two of the investigators reviewed the narrative comments and independently generated themes. The two investigators met and discussed and reconciled the list of themes that were generated. The results of this initial analysis and the comments from the primary analysis were then reviewed by the other investigators independently and comments were sent to the 2 primary reviewers. The input from the group was incorporated into a final draft that was cycled back to the group for revision and approval.

The parents' narrative comments fit into 2 main themes. The first theme revolved around perceived barriers to shared reading, which included the affordability of books, a lack of public libraries, and the perception that many books that were available were of poor quality. Mothers also reported their perception that the home, school and societal environments did not encourage children to read for pleasure.

The second theme revolved around qualities of children's books that parents thought were desirable. Those qualities included books written in correct Classical Arabic, that are culturally relevant. They also preferred books with a moral, a lesson or having some other kind of educational value. Finally, they liked books that have developmentally appropriate language and realistic and attractive illustrations. The result of this analysis is presented in Table 4, including quotes from the parents.

Table 4  
Analysis of narrative comments.

Category	Themes and example narrative comments	Number
Barriers to Reading	Books are expensive	10
	Quality books are expensive	
	No encouragement for reading (to children) in the society, schools and homes	18
	Unfortunately, neither the society nor the parents encourage reading	
	Reading is not encouraged even at schools	
	there is little interest or emphasis on children's literature from Arab authors and writers	
	Quality Children's books not available	10
	<i>"it is difficult to find quality children's books, especially for young children".</i>	
	Lack of access to libraries	8
	We do not have public libraries	
Characteristics of books preferred by parents	Available books lack moral and an educational goal	12
	Unfortunately, most of the available books are silly, without meaning and are pointless.	
	Electronic devices took away from reading.	3
	smart electronic devices moved us away from reading	
	Culturally appropriate content	3
	Children's books must reflect our values and traditions	
	Classical Arabic	7
	We need books in correct classical Arabic, and with diacritics	
	Developmentally appropriate:	6
	books for younger children	
<i>Sentences should be short and the book not too long"</i>		
	Importance of size of the book, small is preferred	13
	<i>a small book is attractive and encourages reading</i>	
	Importance of quality of illustrations	8
	I prefer realistic illustrations	
Colorful illustrations are important		

## **Discussion:**

Understanding local practices and attitudes regarding early reading is essential to the development of effective literacy promotion programs. Our study found that while Jordanian mothers were highly engaged in their children's education, and had positive attitudes toward shared reading, few of them reported reading to their young children regularly. The proportion of mothers who engaged in regular shared reading in Jordan (6%) are at the lower end of the range of rates of shared reading in 36 countries reported by UNICEF, in which the rates of shared reading ranged from 6%-96%. (27) For comparison, rates of regular shared reading in the United States are around 50%. (36) The low reported rates of shared reading in Jordan contrasts with a much higher proportion of mothers helping their school age children with homework on daily basis. This could be because mothers did not associate shared reading and academic achievement, or that academic achievement is specifically valued, and perceived as being distinct from reading for pleasure. It may also be interpreted in more pragmatic terms. Since mothers have to prioritize their time and energy, they may perceive that homework is a more important activity than shared reading for pleasure. Thus homework displaces the latter activity.

Independent predictors of shared reading were the total number of books in the home, the number of children's books in the household and maternal reading behavior. Although the mothers' level of education increased the odds of shared reading, it did not reach statistical significance as an independent factor. This was an unexpected finding, given that maternal educational level was significantly correlated with shared reading behaviors in research from other countries. (37, 38)

The findings from the narrative comments may also be helpful in understanding perceptions of the social role that reading plays in Jordan. Mothers who provided narrative comments reported that there was a general lack of encouragement or promotion of children's reading in school, home or in the community at large. This finding has not been reported before, and requires verification from larger samples. Additionally, mothers indicated a preference for books written in correct classical Arabic and developmentally appropriate language, with realistic and attractive illustrations. They also indicated their preference for books with culturally appropriate themes, including narratives that provide a moral. This finding is consistent with previous research indicating that children's books may play a role in the transmission of cultural values. (39, 40)

Previous research indicates that some cultural groups may not consider shared reading to be important in literacy promotion. A study of literacy promoting activities among Canadian parents reported that the majority of Canadian parents of ethnic Chinese origin tended not to prioritize shared reading as a literacy promotion activity when compared to Canadians of European ancestry. (41) Another study from the Netherlands found that although most ethnic minority families engaged in school related literacy activities, these activities did not necessarily include shared reading. Additionally, many of the ethnic minority parents in the study indicated that shared reading was an unfamiliar activity. (42)

The majority of children in this study were reported to spend significantly more time on screen devices than is appropriate for their age based on the recommendations of the AAP (43) and the WHO. (44)

Currently, the vast majority of published research on shared reading comes from developed countries, primarily the US, Australia and Europe. There are very few studies from Latin America, Africa or the Middle East. Studies that do exist suggest that socioeconomic and sociocultural variables in different populations impact the early home literacy environment, including rates of shared reading activities. (28, 31, 41, 42, 45–50) Studies also suggest that literacy promotion interventions are effective in increasing shared reading behaviors, and that these positively impact child language and literacy outcomes regardless of sociocultural background. (19, 48, 51–53) The promotion of shared reading offers a valuable opportunity to improve child health globally. (54)

Although the families in our sample had a relatively higher level of education and higher rates of maternal employment than average for Jordan, this finding may be related to the demographic targeted; specifically, parents of young children. In

addition, the study was of a single center in the capital city of the country. These factors may limit the generalizability of our findings. However, we believe that our findings highlight important sociocultural factors that can inform effective and sustainable interventions to improve literacy in the region. These variables must be further explored in order to maximize the effect of interventions that will sustainably impact literacy rates. In addition, future studies of these interventions pinpointing optimally effective interventions are needed.

In our study, we identified a sociocultural focus on academic achievement in children. Shared reading may provide value added benefit toward this societal goal. Highlighting the beneficial effects of early reading on language development and linking this to future academic achievement may be helpful in increasing Jordanian families' interest in the adoption of shared reading behaviors. We also identified needs for reading promotion in schools and homes as well as improved access to quality children's books. Publicity campaigns that promote reading, book ownership and support for public libraries might also be important to improve rates of shared reading behaviors. Ensuring the availability of books that meet parental expectations might also be helpful in incentivizing parents to read to their children.

The role of the pediatrician or other health care provider in literacy promotion in the primary care setting is based on evidence of this approach in the US and other industrialized countries, where the majority of children have regular contact and a longitudinal relationship with a pediatrician or a primary care physician.(15) Additionally, the advice of a physician or other health care provider is likely to be considered seriously by families even in the absence of the long-term relationship. Distribution of books to children during health care visits has been shown to increase shared reading behaviors in other cultures. Testing this intervention in Arabic speaking cultures might be worthwhile.

This study provides important insights into the ways that culture influences shared reading. It also provides some insight into factors that may be associated with a positive literacy environment in the home. Understanding the unique sociocultural forces that influence reading to children are important in designing literacy-promotion programs cross-culturally and may be important in improving global health outcomes. The development of culturally relevant interventions to enhance childhood literacy potentially represents an enormous opportunity to improve the health of children worldwide.

## Declarations

### Ethics approval and consent to participate:

The study protocol was approved by the University of Nebraska Medical Center Internal Review Board and by the Jordan University Hospital Research Review Committee and performed in accordance with the Declaration of Helsinki for the protection of human subjects of research. Verbal informed consent to participate was obtained from participants and they were provided with study information sheet and contact information of the investigators and ethics boards in both institutions.

**Availability of data and materials:** Deidentified data in the form of Microsoft Excel are available and can be obtained by direct request from the primary investigator be email at [anasir@unmc.edu](mailto:anasir@unmc.edu).

**Competing interests:** Dr. Arwa Nasir wrote and self-published a few children's books under a pseudonym. She has made 0 income from these books. The books were not related to this research in any way and is mentioned because it may be perceived as conflict of interest. All other authors declare no real or perceived conflict of interest

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### Contributors

Arwa Nasir: Conceived the research idea, performed the literature search, designed the methods for data collection, wrote the initial and final research protocol, wrote and modified the survey instrument, supervised the data collection, wrote and

approved the final manuscript.

Saif Bawaneh: Participated in the development of the research protocol and the survey instrument, did the majority of patient recruitment and survey administration, data collection and data management. He reviewed the final manuscript and approved as submitted.

Bayan Alaraj: participated in the development of the research protocol, supervised data collection, participated in literature search, reviewed the final manuscript and approved it as submitted.

Sara Kussad: participated in the development of the research protocol, supervised data collection, participated in literature search, reviewed the final manuscript and approved it as submitted.

Laeth Nasir: Participated in the conceptualization of the research idea and research design, participated in literature review, survey development, and had a major role in the writing and revision of the final manuscript, and, approved the manuscript as submitted.

Elizabeth Lyden: Participated in the statistical analysis and interpretation of the data.

Eman Badran: Reviewed and revised the research protocol, participated in the development of the research survey, facilitated patient recruitment and supervised data collection, reviewed the manuscript and approved the final manuscript as submitted.

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