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Research Article

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Prevalence of School Refusal and Associated Factors among First-Grade Elementary School Children in Al-Hillah City, Iraq: A Case-Control Study

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Abstract

Background: School refusal is a significant childhood problem characterized by difficulty attending or remaining at school and is often associated with emotional, psychological, family, and school-related factors. This study aimed to determine the prevalence of school refusal and its associated factors among first-grade elementary school children in Al-Hillah, Babil, Iraq.

Methods: A case-control study was conducted among first-grade children aged 6–7 years in 13 urban primary schools in Al-Hillah during March–May 2012. A total of 300 children were included, comprising 150 children with school refusal and 150 controls. Data were collected using a structured questionnaire assessing sociodemographic, health-related, psychological, family, and school-related factors.

Results: Among 1,468 assessed children, school refusal was identified in 150 (10.2%). Significant associations were found with maternal unemployment (OR = 3.45), broken family status (OR = 13.40), parental educational level, and poor school performance. School refusal was also strongly associated with crying in class, classroom anxiety and instability, frequent requests to use the washroom, parental threats regarding school attendance, preference to remain at home, somatic complaints, and escaping from lessons (all $p < 0.001$). Lack of kindergarten attendance and lack of a previous school visit were also significantly associated with school refusal.

Conclusion: School refusal affected 10.2% of first-grade children and was associated with multiple family, emotional, behavioral, and school-related factors. Early identification, parental and teacher support, school familiarization, and appropriate psychological and educational interventions are important for improving children's school adjustment and reducing school refusal.

Keywords: School Refusal, School Attendance, Elementary School Children, Anxiety, School Avoidance, Family Factors, School Performance, Childhood Behavior

Introduction

School refusal is a significant childhood problem characterized by difficulty attending school or remaining at school for the expected period. It may present as complete absence from school, leaving school during the day, severe distress when preparing to attend, or repeated physical and emotional complaints associated with school attendance. Unlike truancy, school refusal is commonly associated with emotional distress and is frequently observed in children experiencing anxiety, separation difficulties, depression, or other psychological problems [1,2]. School refusal may occur at different ages, particularly during important periods of educational transition.

Previous studies have reported that symptoms may become apparent when children first enter school and may reappear during later transitions between educational stages. Young children may show crying, clinging to parents, temper tantrums, fear, or refusal to leave home, whereas older children may present with anxiety, social difficulties, or physical complaints [3,4]. The prevalence of school refusal varies considerably according to the population studied and the criteria used for its identification. Previous reports have estimated school refusal in approximately

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1% of school-aged children, while higher rates have been observed among children attending psychiatric services [5]. Studies have also reported that school refusal may affect both boys and girls and can occur across different socioeconomic and cultural backgrounds.Several psychological factors have been associated with school refusal. Separation anxiety is an important factor, particularly among younger children who may experience excessive concern about the safety of their parents or caregivers. Other children may avoid school because of social anxiety, fear of academic or athletic performance, generalized anxiety, depression, or fear of bullying. These psychological difficulties may be accompanied by physical symptoms such as headache, abdominal pain, nausea, vomiting, dizziness, sweating, palpitations, and trembling [6,7]. Family circumstances may also influence school attendance. Dysfunctional family interactions, excessive dependency, poor communication, family conflict, social isolation, and difficulties in parental roles have been reported in association with school refusal. In addition, parental psychological problems and socioeconomic circumstances may contribute to the development or persistence of school avoidance behavior [8].

School-related factors are another important component. Children may experience difficulties related to teachers, classmates, academic performance, school transitions, bullying, or other stressful situations within the school environment. Repeated absence may subsequently interfere with academic achievement and peer relationships, while prolonged absence can make returning to school increasingly difficult [9].

Early recognition of school refusal is therefore important. Warning signs may include frequent complaints about attending school, repeated lateness or unexplained absences, requests to return home, frequent visits to the school nurse because of physical complaints, excessive worry about parents during school hours, and crying or severe distress before school attendance [10]. A comprehensive assessment should consider the child's medical, psychological, family, peer, and school history in order to identify possible contributing factors.Management of school refusal generally requires cooperation between the child, parents, teachers, healthcare professionals, and mental health specialists. Behavioral approaches, gradual exposure to the school environment, supportive interventions, parental involvement, and appropriate management of associated psychological disorders may help facilitate return to school [11]. Despite the potential educational and psychological consequences of school refusal, information regarding its occurrence and associated factors among young elementary schoolchildren in Al-Hillah is limited. Therefore, the present study was conducted to determine the prevalence of school refusal among first-grade elementary school children aged 6–7 years and to investigate its association with sociodemographic, health-related, psychological, family, and school-related factors in Al-Hillah city, Babil Governorate, Iraq.

Materials and Methods

Study Design and Setting

A case-control study was conducted among 300 first-grade elementary school children aged 6–7 years in 13 urban primary schools in Al-Hillah city, Babil, Iraq, during March–May 2012. The study included 150 children with school refusal and 150 healthy controls. Data were collected using a structured questionnaire assessing sociodemographic, health-related, psychological, family, and school-related factors. The questionnaire was reviewed by two psychology experts.

Ethical approval was obtained from the relevant Babylon health, medical, and education authorities, and informed consent was obtained from parents and teachers.

Study Population and Sample Size

A total of 300 children were included in the study:150 cases: children who fulfilled the criteria for school refusal. 150 controls: healthy first-grade schoolchildren without school refusal. Cases and controls were selected from the same school-age population.

Data Collection

Data were collected using a structured questionnaire prepared by the researchers. The questionnaire assessed factors potentially associated with school refusal, including:

- Sociodemographic characteristics
- Health-related factors
- Psychological and emotional factors
- Family-related factors
- School-related factors
- Behavioral manifestations and symptoms associated with school refusal

The questionnaire was reviewed by two experts in psychology to assess its suitability before application.

Ethical Considerations

The study received approval from the relevant Babylon Medical College scientific section and the ethical research committee of the Babylon Health Directorate, in addition to approval from the Babylon Education Directorate .The school administrations and teachers were informed about the objectives of the study. Informed consent was obtained from the participating children's parents and first-grade teachers before data collection.

Results

Prevalence of School Refusal

A total of 1,468 first-grade elementary school children aged 6–7 years were included in the assessment of school refusal. Of these, 536 (36.5%) were males and 932 (63.5%) were females.

School refusal was identified in 150 children (10.2%). In addition, nine children had discontinued school attendance because of school refusal .For the case-control analysis, 150 children with school refusal were compared with 150 children without school refusal.

Maternal Employment Status

Among children with school refusal, the majority had non-employed mothers (132, 88.0%), compared with 102 (68.0%) among controls. In contrast, employed mothers accounted for 18 (12.0%) of cases and 48 (32.0%) of controls. Maternal employment status was significantly associated with school refusal ($\chi^2 = 17.483$, $p < 0.001$). Children of non-employed mothers had higher odds of school refusal compared with children of employed mothers (OR = 3.451, 95% CI: 1.894–6.289).

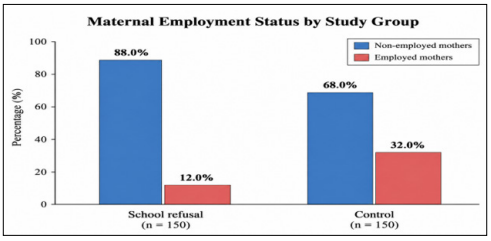


Figure 1: Maternal Employment Status among Children with and without School Refusal.

3Family Status

A marked difference was observed in family status between children with and without school refusal. Among cases, 127 (84.7%) belonged to broken families, whereas only 2 (1.3%) of the control children belonged to broken families. Stable families represented 23 (15.3%) of cases and 148 (98.7%) of controls .Family status was significantly associated with school refusal (χ^2 = 19.244, p < 0.001). Children from broken families had substantially higher odds of school refusal (OR = 13.402, 95% CI: 3.099–57.951).

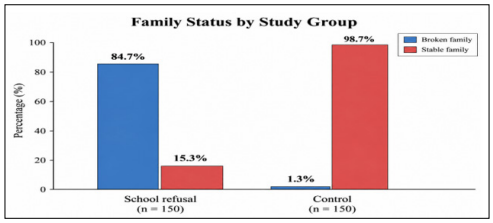


Figure 2: Family Status among Children with and without School Refusal

Parents' Educational Level

A significant association was observed between parents' educational level and school refusal.

Among mothers of children with school refusal, 23 (15.3%) were uneducated, 64 (42.7%) had primary education, 22 (14.7%) had secondary education, 24 (16.0%) had high-school education, and 17 (11.3%) had diploma or bachelor-level education. The corresponding proportions among controls were 3.3%, 34.7%, 17.3%, 16.0%, and 28.7%, respectively. Maternal educational level was significantly associated with school refusal (χ^2 = 24.413, p < 0.001). Compared with the reference category, the reported odds ratios were 3.737 (95% CI: 1.329–10.511) for primary education, 5.436 (95% CI: 1.771–16.686) for secondary education, 4.600 (95% CI: 1.506–14.085) for high-school education, and 11.635 (95% CI: 3.803–35.600) for diploma/bachelor education.

Regarding fathers' education, 6 (4.0%) of cases were uneducated, 38 (25.3%) had primary education, 39 (26.0%) had secondary education, 34 (22.7%) had high-school education, and 33 (22.0%) had diploma or bachelor-level education. Among controls, the corresponding proportions were 1.3%, 7.3%, 14.7%, 31.3%, and 45.3%, respectively.A significant association was also observed between paternal educational level and school refusal (χ^2 = 35.830, p < 0.001). The reported odds ratios were 0.868 (95% CI: 0.153–4.925) for primary education, 1.692 (95% CI: 0.314–9.112) for secondary education, 4.147 (95% CI: 0.788–21.811) for high-school education, and 6.182 (95% CI: 1.183–32.300) for diploma/bachelor education.

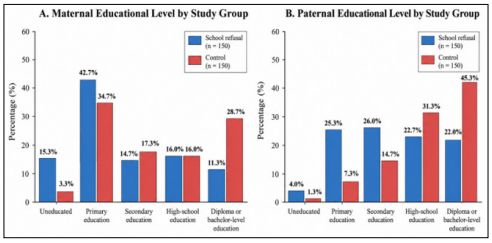


Figure 3: Distribution of Maternal and Paternal Educational Levels among Children with and without School Refusal

School Performance

School performance differed significantly between children with school refusal and controls (χ^2 = 103.219, p < 0.001). Among children with school refusal, 45 (30.0%) had weak academic performance, 44 (29.3%) had accepted performance, 52 (34.7%) had good performance, and only 9 (6.0%) had very good performance. Among controls, the corresponding proportions were 13 (8.7%), 7 (4.7%), 48 (32.0%), and 82 (54.7%), respectively. Compared with the reference category, the reported odds ratios were 0.651 (95% CI: 0.201–1.510) for weak performance, 3.195 (95% CI: 1.558–6.639) for good performance, and 31.54 (95% CI: 12.51–79.49) for very good performance.

School-Related Social Factors

The presence of friends at school was reported in 115 (76.7%) children with school refusal and 118 (78.7%) controls. This difference was not statistically significant (χ^2 = 0.222, p = 0.637; OR = 0.895, 95% CI: 0.564–1.420).Regarding previous kindergarten attendance, only 39 (26.0%) of children with school refusal had attended kindergarten compared with 74 (49.3%) of controls.

Kindergarten attendance was significantly associated with school refusal (χ^2 = 24.194, p < 0.001; OR = 2.771, 95% CI: 1.855–4.309).Only 2 (1.3%) children with school refusal had visited the school and classrooms before enrollment, compared with 14 (9.3%) controls. This difference was statistically significant (χ^2 = 9.507, p < 0.001; OR = 2.827, 95% CI: 1.855–4.309). Having a brother attending the same school was reported in 83 (55.3%) cases and 97 (64.7%) controls. The association was not statistically significant (χ^2 = 1.103, p = 0.294; OR = 0.810, 95% CI: 0.547–1.200).

Behavioral Characteristics at School

Several behavioral characteristics were strongly associated with school refusal.Crying in class was reported in 145 (96.7%) children with school refusal compared with only 5 (3.3%) controls. This association was statistically significant (χ^2 = 261.33, p < 0.001; OR = 841.0, 95% CI: 238.36–2967.19). Similarly, worry and instability in class were reported in 141 (94.0%) cases compared with 12 (8.0%) controls (χ^2 = 221.96, p < 0.001; OR = 180.16, 95% CI: 73.57–441.17).Frequent requests for permission to use the washroom (W.C.) were reported in 138 (92.0%) cases compared with 13 (8.7%) controls. This difference was statistically significant (χ^2 = 208.34, p < 0.001; OR = 121.19, 95% CI: 53.40–275.01).

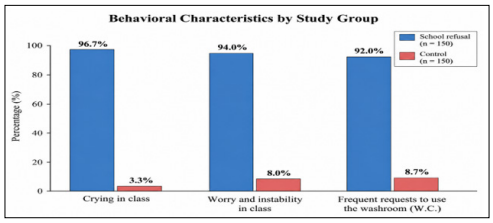


Figure 4: Behavioral Characteristics among Children with and without School Refusal

Behavioral Characteristics at Home

Children who were threatened by their parents regarding school attendance represented 63 (42.0%) of the cases compared with only 4 (2.7%) controls. This association was statistically significant (χ^2 = 66.89, p < 0.001; OR = 26.43, 95% CI: 9.29–75.14).Sleeping with the mother was reported in 125 (83.3%) cases and 105 (70.0%) controls, showing a significant association with school refusal (χ^2 = 7.453, p = 0.006; OR = 2.143, 95% CI: 1.232–3.727).Jealousy toward brothers was reported in 81 (54.0%) cases compared with 59 (39.3%) controls. This difference was statistically significant (χ^2 = 6.482, p < 0.001; OR = 1.811, 95% CI: 1.144–2.864).

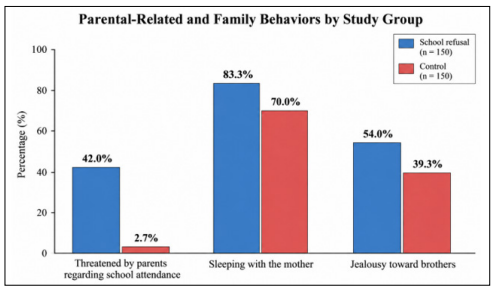


Figure 5: Parental-Related and Family Behaviors among Children with and without School Refusal.

School Avoidance and Somatic Complaints

A strong association was observed between school refusal and preference to remain at home. 136 (90.7%) children with school refusal preferred staying at home compared with only 5 (3.3%) controls (χ^2 = 229.61, p < 0.001; OR = 281.71, 95% CI: 98.82–803.09).Somatic complaints were also common among cases. 140 (93.3%) children with school refusal reported claiming illness and/or abdominal pain compared with 12 (8.0%) controls (χ^2 = 218.49, p < 0.001; OR = 161.00, 95% CI: 67.349–384.87).In addition, 138 (92.0%) children with school refusal were reported to escape from lessons compared with 17 (11.3%) controls. The association was statistically significant (χ^2 = 195.43, p < 0.001; OR = 89.97, 95% CI: 41.39–195.56).

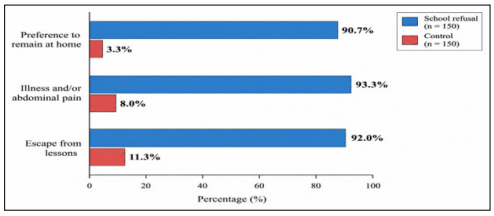


Figure 6: School Avoidance and Somatic Complaints among Children with and without School Refusal.

Parents' Knowledge and Practices Related to School Refusal

Parents' knowledge regarding school refusal was significantly associated with the presence of school refusal. 140 (93.3%) parents of children with school refusal were reported to have knowledge about the condition compared with 26 (17.3%) parents of controls (χ^2 = 175.27, p < 0.001; OR = 66.76, 95% CI: 30.96–143.96).Overall, the findings demonstrate significant differences between children with and without school refusal across several family, behavioral, school-related, and psychosocial characteristics, whereas some factors, such as having friends at school and having a brother in the same school, did not show statistically significant associations.

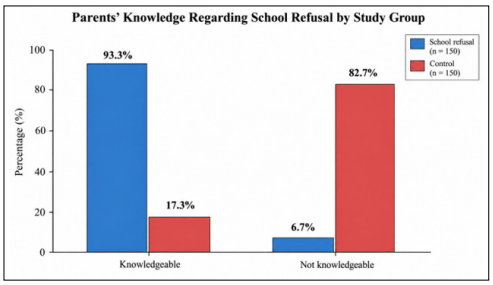


Figure 7: Parents' Knowledge Regarding School Refusal among Children with and without School Refusal.

Discussion

The present study found that the prevalence of school refusal among first-grade elementary school children was 10.2%. This finding indicates that school refusal represents a relevant behavioral and emotional problem during the early stages of school adaptation. Previous studies have described school refusal as a multifactorial behavior that may be associated with anxiety, difficulties related to school attendance, family factors, and adverse school experiences [12,13]. In the present study, a significant association was observed between parental marital status and school refusal, with children from disrupted families showing a substantially higher likelihood of school refusal (OR = 13.4). The high proportion of children with school refusal who belonged to separated, divorced, or otherwise disrupted families suggests that family structure may represent an important contextual factor. However, this association should not be interpreted as evidence that marital disruption directly causes school refusal. Previous research has reported an overrepresentation of single-parent families among children with school refusal and identified difficulties in family functioning, particularly communication and role performance [14]. A recent systematic review also reported associations between school refusal and several parental and family-related factors, although the available evidence remains heterogeneous [15]. The present findings differ from those reported by Brill, who did not identify a statistically significant relationship between school refusal and living with a single mother. Such differences may be related to variations in sample characteristics, socioeconomic conditions, cultural context, age groups, and the criteria used to identify school refusal [16]. Therefore, family structure alone may not adequately explain school refusal, and the quality of family relationships, communication, and parental support should also be considered. A significant association was also found between maternal unemployment and school refusal (OR = 3.4). This finding is consistent with the observations of who investigated familial and parental factors among children and adolescents

exhibiting school refusal and reported relationships between family-related characteristics and school refusal behavior [17].

Maternal employment status, however, should not be considered an independent causal factor without considering other variables, including socioeconomic conditions, family functioning, parental psychological difficulties, and the level of parental supervision. The present study demonstrated a strong association between parents threatening or punishing children because of problems related to teachers or school (OR = 26.4). This finding may indicate that negative parental responses to school-related difficulties are associated with increased emotional distress surrounding school attendance. Previous research has emphasized the importance of family functioning and parental responses in understanding school refusal behavior [18]. Nevertheless, the relatively high odds ratio should be interpreted cautiously, particularly if the number of children exposed to this factor was small.

A strong association was found between anxiety and crying in the classroom and school refusal, with these symptoms reported in 96.7% of children with school refusal. Anxiety is one of the most frequently described emotional characteristics associated with school refusal. Egger et al. reported substantial associations between anxiety-based school refusal and psychiatric disorders, particularly separation anxiety and depression [19]. Previous reviews have likewise identified anxiety and emotional distress as important components of school refusal behavior [20]. The presence of crying and anxiety during classroom attendance may therefore reflect difficulties with separation from caregivers or adaptation to the school environment, particularly among younger children entering school for the first time .Frequent requests to leave the classroom or go to the toilet were also significantly associated with school refusal in the present study, occurring in approximately 92% of affected children ($P < 0.001$). Such behaviors may represent manifestations of anxiety or attempts to escape from an uncomfortable school situation. Kearney and Albano proposed that school refusal behavior may be maintained by avoidance of anxiety-provoking situations or by attempts to obtain relief from emotional distress [21]. Therefore, repeated requests to leave the classroom may represent an important behavioral indicator for teachers and parents, particularly when accompanied by crying, anxiety, or reluctance to remain at school. The present study also demonstrated a significant relationship between school refusal and poor school performance. Among children without school refusal, approximately 54.7% demonstrated very good academic performance, compared with only 6% among children with school refusal, with a reported OR of 31.5. Previous literature has recognized that persistent school refusal can interfere with educational participation and academic functioning because repeated absence reduces children's opportunities to participate in classroom activities and maintain continuity of learning [22]. However, the relationship may be bidirectional: academic difficulties may contribute to school avoidance, while repeated absence may subsequently worsen academic performance.

Therefore, longitudinal studies are required to clarify the temporal relationship between these factors.Another significant finding was the association between not visiting the school before enrollment and school refusal (OR = 2.8). Almost 98.7% of children with school refusal had not visited the school before enrollment. This finding may be particularly relevant among first-grade children because entering school represents a major developmental transition. Familiarization with the school building, teachers, classroom environment, and other children may reduce uncertainty and facilitate adaptation. Previous literature has emphasized the importance of transitions and environmental factors in the development of school refusal [23].Overall, the findings of the present study indicate that school refusal among first-grade children is associated with several family, emotional, behavioral, and educational factors, including parental marital status, maternal employment status, negative parental responses to school-related problems, anxiety and crying, frequent requests to leave the classroom, poor school performance, and lack of previous school familiarization. These findings emphasize the importance of early identification and intervention involving parents, teachers, school counselors, and healthcare professionals. Early recognition may help prevent persistent absenteeism and its potential consequences for children's educational and psychosocial development [23].

Conclusion

School refusal was observed in 10.2% of first-grade children and was significantly associated with family instability, maternal unemployment, negative parental responses, anxiety and crying, frequent requests to leave the classroom, poor school performance, and lack of school familiarization before enrollment. Early identification, parental and teacher support, school familiarization, and appropriate psychological and educational interventions are important to improve children's adjustment to school and reduce school refusal.

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