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## Home-based childhood injury prevention Jeddah Saudi Arabia

By

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## Abstract

**Purpose:** to describe the home-base child injury prevention factors and practices by Saudi households in Jeddah, Saudi Arabia.

**Design and sample:** A cross sectional sample of mothers that have pre-school children. The sample size was 678 families with socioeconomic (crowding index) status brake down similar to the city of Jeddah. Data collection consisted of surveying mothers in their home about safety equipment usage and practices related to burns, falls, poisoning, electrocution, and street accidents. Statistical methods used included descriptive, chi-square between injury factors and reported accident, and regression to test the degree of contribution of the injury factors and demographic to perceived mortality risk.

**Results:** factors exposing households to fire and burn safety practices were fire alarm at 15.7% followed by smoking in bed and matches within reach of children at 18.5% and 20.4% respectively. Factors exposing to falls were presence of unsafe steps at 28.8%, unsafe bathing area at 51.5%, and small rugs not fixed to the floor at 36.3%. Electrical plugs not safely covered were a common practice. Mothers also reported that they mostly adhered to street safety practices. The sampled mothers have also reported that 20.2% of them had experienced a child injury requiring a doctor or an emergency room attention.

**Conclusion:** households with increased risk of accidents are structurally lacking fire alarms and furniture's and fixtures increase tripping and slipping. Families with these risks of unintentional injuries can give extra attention to increase awareness. Parenting training could also emphasize appropriate levels of supervision and management of their home and young children. Schools should also develop child appropriate programs on burns, falls, drowning, and poisoning.

**Key words:** safety, burns, falls, poisoning, mothers practices, household, parents

## Introduction:

Childhood injuries when compared to communicable diseases are the leading cause of death. According to the Centers of Disease Control and Prevention (CDC), unintentional injuries are the leading killer of children age 14 and under. Unintentional residential childhood injury is defined by the International Classification for External Causes of Injuries (ICECI) as any episode of unintentional childhood injury that took place in the home environment, which is defined as the 'person's usual residence' and its corresponding 'parts of building'. Compared to violence induced injuries, unintentional injuries are more moderate and occur in children at a greater prevalence.

Falls, road traffic injuries (RTIs), drowning, burns and poisoning are the main causes of unintentional injuries and these are among three of the top 15 causes of death of children and young people. For ages 0 to 19 falls are the leading cause of nonfatal injuries. Approximately 8,000 children are treated daily in U.S. emergency rooms for fall related injuries (National Center for Injury Prevention and Control, 2015) (Philbrook, 2011). An epidemiological Swedish full year study of all ages showed a rate of 118.9 per 1,000. They consisted of accidents in the home (35.0%), sports accidents (18.9%), and accidents at work (13.7%), traffic accidents (12.8%), and "other" accidents (19.5%). Men were involved in 62.2%, and were overrepresented in all age groups but 70 years and over. The commonest cause of injury was falling (36.4%), followed by injuries due to falling objects or blows (17.7%), cutting or piercing objects (15.0%), and physical overexertion (12.9%) (K. S. Lindqvist, 1989). Globally, a study of burden on health of 306 diseases and injuries calculated national disability-adjusted life years (DALYs). This demonstrated a comparison of health loss over time and across causes, age-sex group of 188 countries. The results show that up to 2013 the greatest health loss was due to five leading causes. Chronic

diseases causing health loss are ischemic heart disease, cerebrovascular, and respiratory infections. Injuries causing health loss are low back pain, road injuries. The study further stress that sociodemographic status doesn't explain the variation in chronic disease or unintentional injuries and self-harm and interpersonal violence (Murray, Barber, & Foreman, 2015).

Children burn injuries are second to road injuries. Children are at greater risk for burns because of their curiosity and react in compulsiveness. Also their calculation of risk doesn't offer self-protection. Most common cause of burn injuries in children is scalds. Burns are caused by hot drinks and bottle warming practices. Tap water in bathrooms is also a major factor in child burn injuries. Usually toddlers sustain these injuries either in the kitchen or dining room Thermal and scald burns continues to be the major unintentional burn childe injury(Oseni, Olamoyegun, & Olaitan, 2017). Fire and flame injury in children is typically associated with the highest risk of death or complication . The majority of fire related deaths are the result of smoke inhalation, with the remaining deaths of children ages 4 and younger is caused by flames and burns(American Burn Association, 2017).

Exposure to poisoning is another unintentional injury challenge. Annually, more than 1 million children under age 6 are exposed to a toxic substance. This age group consistently accounts for 50% to 60% of the reported exposures (Litovitz et al., 2004). The majority of the exposures occur in the home. The leading agents have remained the same for the past 10 years: cosmetics and personal care products, cleaning substances, analgesics, plants, and cough and cold preparations (Liebelt & DeAngelis, 1999).

The united Nations Children's Fund had been quoted that "childhood injuries declined by 50% in high- income countries between 1970 and 1995", yet report form low income countries have shown an increase in child hood injuries (Pant, Towner, Pilkington,



& Ellis, 2015). Canada, one of the high income countries which enjoyed the reduction in child injuries, the considerable decrease in injury deaths in children and the reduction suggests that most childhood injury deaths are preventable. The reasons behind the decline included educational campaigns, community safety programs(K. Lindqvist, Timpka, Schelp, & Risto, 2002), legislation and safety regulations, child resistant packaging for prescribed drugs, increased use of child safety seats and seat belts and helmets, improved road conditions, safer playgrounds (layout, equipment, and surfacing), comprehensive counseling in injury prevention for parents and caregivers, and increased use of residential smoke detectors19 29–38 as well as improvement and expansion of passive preventive measures, such as trauma centers, burn treatment centers, and regional poison control centers. Another reason suggested for the decreasing trends is that fewer children are exposed to environmental specific risks, and thus at lower risk for injuries

### **Research problem:**

Injuries outweigh prevented deaths. Millions of children are hospitalized, and others have persistent diseases that may stunt growth. Hadeel Albedewi, et al. Scoping assessment of Saudi child injuries (2021) suggests that using and using general injury data may explain the low fatality rate. Severe injuries such as ICU burns (25.3%) and head injuries (14.7%) were the most deadly, followed by fractures (8%). These excessive rates require national intervention. Young children spend much of their time at home, and unintentional injuries might occur owing to parental ignorance of the severity of some injuries or how to childproof their house. Unaware caregivers may also cause Parental neglect. Neglect causes central nervous system, craniofacial, fractures, serious burns, and deformity. The death and disability rates of children, who suffer mild maltreatment and accidental accidents, are underestimated. Since accidental injuries don't get national attention, it was important to



examine household knowledge of young children's home injuries and mothers' chosen health education provider. In Jeddah, Saudi Arabia, the purpose of our study is to investigate and characterize the home-based child injury prevention variables and mother's opinions of injury severity and preferred health awareness provider.

Research objectives:

- 1- Describe mothers reported integrity of the home structure and parenting practices related to burns, and their association with reported child accidents
- 2- Describe mothers reported integrity of the home structure and parenting practices related to falls, collisions and road accidents and their association with reported child accidents
- 3- Describe Parental toxicology practices and their association with unintended children's accidents

Research importance:

The study focuses on accident-prone households that are structurally deficient in fire alarms, furnishings, and domestic fittings that encourage tripping and slipping. Families at risk for unintentional injury can prioritize raising awareness. Parents can also be instructed, as preventive seeks to explain appropriate supervision and management levels. For their young children the techniques of raising awareness should be geared around the mother awareness and child's involvement with respect to burns, falls, drowning, and poisoning

Procedural terms:

Burden of injuries: the contributions of morbidity to reduced functioning.

Center of Disease Control (CDC): a major government center dedicated to studying disease and injuries and prevention. It is located in Atlanta, U.S.A.

RTA: road traffic accidents acronym.

DAL: it's a common scale of majoring daily activity of living. It's an indicator of disease burden.

### **Methods:**

#### Study sample:

Saudi female general education data while increasing the number of women covered, it show dropout after high school at 37% and 33% after collage, most drop out to get married (almonajjed, 2020). Dropout rates for girls become very significant with parents in the different socioeconomic levels of neighborhoods. Jeddah has three level neighborhoods socio-economically. The south or old Jeddah represents the low level, while the north closest to the airport represents the high level. The middle level starting with Azizya neighborhoods and others north of it untill we boarder the high level 1 which is varified by The largest population is the middle level crowding index of these neighborhoods The data collection continued during the period of 2016-2018 and students were asked include participant known to them form every level as part of the first aid curriculum requirement

#### Study instrument:

Semi-Structured instrument administered by our students. It was constructed to assess home environment factors related to unintentional accidents and primary caregiver preventive practice of child safety. The standard household demographics, socio-economic status such as family size and number of rooms were included.

Burns prevention section: included home structural aspects such as availability of fire alarm and its maintenance and ability to regulate water temperature. Home fire aspects of this section included questions availability of smoking in bed, matches and lighter within the child reach, high polyester child sleeping wear, and unsafe electrical outlets.



Fractures prevention section: included home structural aspect such as broken steps, unsafe windows, stairs and corridors not well lighted, and bathe areas without hand railing of sticker to prevent slipping. Household behavior section included question on slipping small rugs, using unsafe chairs to reach for objects, and allowing children to play near a major road.

Statistical analysis:

The majority of variables are binary and percent was reported. For the few continuous variables of age, family size, and crowding index central tendency was reported. The chi-square test was applied to examine independence of having the accidents to both parental behavioral and home building prevention factors. The degrees of contribution of all the prevention factors and the some demographic variables to perceived risk of accident mortality were examined using logistic regression.

Study limitation from the study sample which doesn't show the sociodemographic variability of Saudi house- holds.

### **Results:**

The study population demographics and social factors are displayed in table 1 below. Mothers interviewed for this study had an average educational level of a second year of college. They had an average family size of 6 members, and the least number of kids per family were 3. The home crowding level ranged from 7 persons per room to 5 rooms per person; the average was one room per person. Most of the house-holds were in middle socioeconomic neighborhoods, followed by lower socioeconomic, and the least segment occupied high socioeconomic level neighborhood. The house-holds preferred source for accidents prevention education was the doctors, followed by fireman, and least found teachers as preferred source of information. A large portion of mother had first aid training at



42.3%. The percent of the study population who had a child accidents requiring doctor attention was 25.5%.

Table 1: Home socio-demographic of unintentional accidents, Jeddah Saudi Arabia, sample size N=678

Study population	Group1	Group 2	Group 3	Min-max/mean(SD)
Mother education in years	grade0-11= 22.0%	Collage= 64%	Post collage= 7%	0.0-22/14.63 (3.75)
Family size				3-15/ 5.81 (4.1)
Number of kids				1-10/ 1.04 (05)
Crowding index				0.13-5.00/
Neighborhood socioeconomic distribution*	High= 16.2%	Med= 45.7%	Low= 30.5%	
Preferred safety education source	Doctors= 48.5%	Fireman 48.4%	Teachers= 3.1%	
Mothers first-aid training	Yes = 42.3%	No = 51.2%		
Child accidents within the last year requiring doctor attention	Yes = 25.5%	No = 67.3%		

\*neighborhoods were classified as commonly known then tested the correlation with

Crowding, the results show significantly  $X^2=22.01$ ,  $P=.0000$

Burns building factors most available was the ability to regulate water thermostat temperature at 58.6%, followed by availability of fire extinguishers at 36.5%. The lowest percent of 15.7% was for the availability of the very important fire alarm. As for contact fires accidents the highest percentage of parental action of letting matches and lighter within the reach of children at 20%, followed closely by parents smoking in bed at 18.5%. Exposure to electricity is the least factors causing burns, yet it has a great level of complication at 51.8%. The internal consistency of the items in the burns section was not strong enough partly explained by number of factors is less than 10.

Table 2: Home structure safety and parental practices related to burn accidents and its correlation to child unintentional accidents. The internal consistency of the burn items, Cronbach's Alpha = .392

Home structure and parental practices for burns prevention	% Yes	$\chi^2$ , (sig)
Fire safety alarm available	15.7	.524 (.47)
Able to regulate the temperature of the water heater	58.6	5.17 (.023)
Fire extinguisher available at home	36.5	.458 (.498)
Fire safety alarm if checked and works.	16.7	2.59 (.11)
Husband or others smoke while in bed	18.5	5.29 (.021)
Matches and lighters are within the child reach	20.4	6.14 (.013)
Child clothes and pajamas made of polyester fiber	13.2	0.46 (0.4)
Electrical outlets are safely closed by appropriate plastic caps.	51.8	.234 (.63)

Falls and road related accident building factors most present was the availability of handrails in the bathing space at 51.5%, followed by the two factors of availability steps that causes tripping, and unsafe windows at 28.8%, 26.4% respectively. As for parental behavior factor contributing to falls, the two highest factors are stairs and corridors are not well lighted and using chairs to reach high places at respectively 55.1% and 52.2%. This is followed by small rungs not adhered to floor and causing slipping at 36.6%. The two parental behavior least problematic were the use of the rails or parents hands while child climbs stairs at 15.7%, and allowing children to play near a major road at 9.7%. The internal consistency of the items in the falls section was not strong enough partly explained by number of factors is less than 10.

Table 3: Home structure safety and parental practices related to falls, hits, and road accidents and it correlation to occurrences of childe unintentional accidents. The internal consistency of the fracture items, Cronbach's Alpha =0 .412

Home structure and parental practices for falls and road related prevention	% Yes	$\chi^2$ , (sig)
Front door, home, and garden have steps that causes tripping.	28.8	<u>3.05 (.08)</u>
Windows are not safe and prevent falling	26.4	.297 (.59)
Bath area doesn't have handles to prevent slipping	51.5	<u>2.721(.09)</u>
Bathtub has stickers not available to prevent slipping	60.3	.234 (.63)
Stairs have unsafe hand rails & parents hold the child hand while climbing the stairs.	15.7	.006 (.94)
Small rug pieces are not stuck to the floor by tapes	36.3	<u>13.5 (0.00)</u>
Use chair to reach high places	52.1	.523 (.47)
Stairs and corridors are not well lighted	55.1	.216 (.64)
Children play with and without bicycle near a major road.	9.7	2.012 (.16)

Table 4: Parental practices related to pedestrian accidents and abductions and it correlation to childe unintentional accidents

Youngest child practices for street play and exposure RTAs prevention	% Yes	Chi-square (sig)
Play with bicycle near a major road.	78.6	0.18 (.67)
Play in the street with adult watching	76.6	0.18 (.67)
Learn to Cross the street safely and use side walk	86.5	0.55 (.45)
Recognize home phone number	84.7	0.46 (.92)
Recognize and write their name	81	2.43(.11)

Poisoning of children by medication was least probable because most of the medicine bottles were difficult to open or out of reach of children at 78.6%. Also poisoning by cleaning liquids because of being stored in soft drinks bottle at the percent 10.9% wasn't probable. Small percent of parents knowing the poison center of 5.4% is problematic because it exposes children to all other types of poisons. The internal consistency of the items in the burns section was not strong enough partly explained by number of factors is less than 5.

Table 5: Parental practices related to poison and its correlation to child unintentional accidents. The internal consistency of the fracture items, Cronbach's Alpha = 0.017

Home structure and parental practices for poisoning prevention	% Yes	Chi-square (sig)
Medicine kept in child-proof bottles and out of reach	78.6	2.16 (.14)
Keeping house-cleaning liquids in soft drink bottles.	10.9	6.24 (.012)
Knowing and the number for the poison center	5.4	5.42 (.02)

Mother's perceptions as child accidents most causing death show the top ranking fire and burns accidents at 24%. This was followed at 17%, and 15% for poisoning and falls and road related accidents. At the proportion of 10-11% were electrocution, suffocation, and drowning. Logistic regression tested three variable prevention categories (home structural, parental behaviors, and demographics) was used to compare the strongest contribution to child accidents occurrence. For burns all three factors had significant contribution with parental preventive behavior being the strongest. For the rest of the accidents both the home structural and parental preventive behaviors were not significant. For all the accidents the family size or kids' number in the family was highly significant and had a strong contribution compared to all other factors.

Table 6: Child accident mother's perceived risk of mortality and degree of home structure and parental prevention practices to it.

Accident types	%Perceived causing mortality	Contribution of home structural prevention (B, sig)	Contribution of parental prevention (B, sig)	Significant *demographic
fires & burns	24.0	<u>B= 0-.19, sig= 0.01</u>	<u>B= 0.35, sig= 0.03</u>	#kids B= 0.23, sig= 0.00
poisoning	17.0	_____	B= 0.23, sig= 0.6	#kids B= 0.21, sig= 0.00
falls & road	15.2	B= 0.18, sig= 0.1	B= 0.12, sig= 0.1	#kids B= 0.19, sig= 0.00
electrocution	10.0	-.04, sig=.8	_____	#kids B= 0.21, sig= 0.00

\*Demographic variable for the logistic regression included maternal education, crowding index and number of kids

### Discussion and recommendations:

The families form the sample had 71% of mother education at the college and post-collage level. The Saudi general authority of statistics of 2016 show female enrollment in college and high-school to be 51.6% and 83.1% respectively. This could be because the sample reflected the demographic characteristics of the college students completing the course work assignment. Although our sample did not reflect the overall Saudi demographic characteristics of Saudi Arabia, the findings related future child injuries are similar to that of other Saudi region, the WHO, and other national data of U.S.A, and south-east Asia, ((Chan et al., 2003; GadAllah, 2020; Hyder, 2009; Mohammad Ahmad et al., 2018; National Center for Injury Prevention and Control, 2015; Pant et al., 2015). These studies share with our study the top injuries to be burns and fires, falls and road related, and poisoning. An inanimate mechanical force injury was not showing as top injuries in our study because our



study is not hospital medical record abstraction or intensive care unit based sample. Projected child unintentional injuries when compared with World health organization (Hyder, 2009), in low- and middle-income countries (LMIC) show some similarities. Our study exposure to road related injuries as shown in table 4 show relatedness to the largest portion of road traffic injuries to be pedestrian injuries at 39%. Home factors exposing children to fall injuries are similar to WHO study with respect to unsafe stair claiming, and reaching for far places using furniture instead of ladders. Our study households are further exposed to falls injuries by having unsafe, slip prone bathing spaces. The three factors contributing to burn injuries are hot liquids, flames, and electricity: all are present in our study, yet it seems our population have some protection from the hot liquids due to the mother knowledge and ability to control hot water thermostat. The two factors of accidental poisoning ingested medicine and cleaning agents are also present in our study, yet our population is protected from ingested medicine due to container are child proof.

Some of our study significant factors of homes not being child-proof predispose them to burns and falls injuries. For falls structural factors such as, homes don't have hand rails in the bath area, and small rugs are not attached to the floor by tap, and steps that cause tripping are present. For burns, its parental behavior of smoking in bed and matches and lighters are within children reach are the two factors that expose them to burns accident. Poisoning child-proofing doesn't include medication, rather it is about cleaning liquids stored in soft drink containers, and not knowing the poison center contact number.

Occurrences of child unintentional injuries are predicted by three major pillars, the child temperament, the home environment, and the parent's health and behaviors. In our study the mothers ranked child injuries in terms of causing the most mortality to be the most for

fires and burns, then poisoning, then falls. Mothers' presentation of the long list of injuries and predicting their mortality is probably a reflection of the higher and socio-economic level of our study population. This portrays that their perception mother hood includes in its responsibility injury prevention. Other sociodemographic variables of lower socioeconomic and teenage mother are present in Saudi. Mothers of lower socioeconomic report general worries not specific injuries and perceive injury prevention as supervision difficulty (Hendrickson, 2008). Teenage mothers also don't perceive injury prevention as part of motherhood (Bennet Murphy, 2001). In our study households with multiple children is significantly associated to injuries occurrences. This is an expected relationship since contrary to popular belief having more children doesn't increase parental developmental competence, beliefs about supervision, supervisory attributes, and home modification behaviors (Taylor, 2011). Providers most suited and accepted to provide this awareness are doctors. Teachers although being female were not chosen as preferred providers probably due to reduced medical knowledge and providing family leadership as a school function needs to be further developed.

As per the preschool side, management could survey applicants and keep record of their child developmental aspect, parental and child temperament, and safety factors need for improvement (Whiteside-Mansell et al., 2010). Teachers could be mobilized to Increase the preschool children awareness preschool level by using programs akin to the Safety Detective Program (Morrongiello, Bell, Park, & Pogrebtsova, 2016). The program when designed to teach young children (4-6 years) non manual training also not dependent on experts' visits and topics covered should be burns, falls, poisoning and drowning. Each session involved play based activities (storybook, song, and game or craft) to teach main messages about hazards and injury risk behaviors, a take home new activity, and a parent information sheet about the injury type covered that day. Such a classroom setting program will increase children's knowledge and understanding of home safety hazards and injury risk behaviors to avoid.





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### **Recommendations:**

Further research on prevention strategies can employ a nationwide sample or monitoring system that also make use of child interviews to validate the mother view and arrive at evidence based intervention. Also researcher should make a shift from general population to vulnerable at risk population abused or sheltered kids. Future research on parent training should provide appropriate levels of supervision for their younger children (ages 6 to 36 months). Specifically, caregivers can be taught to include: (1) scanning the environment (for potential hazards, including child behavior), (2) identifying potential hazards, (3) predicting potential hazardous interactions their child may have with his or her environment and (4) deciding whether to modify their child's immediate environment or intervene on their child's behavior in order to prevent their child from contacting a potential hazard or hazardous events (Truba, 2016).



## References

- American Burn Association, N. B. R. (2017). National burn repository update 2017. 141
- Bennet Murphy, L. M. (2001). Adolescent mothers' beliefs about parenting and injury prevention: Results of a focus group. *Journal of Pediatric Health Care, 15*(4), 194-199
- doi: 10.1067/mp.2001.112516
- CDC. (2015). 10 Leading Causes of Death by Age Group, United States – 2015
- Chan, C. C., Luis, B. P., Chow, C. B., Cheng, J. C., Wong, T. W., & Chan, K. (2003). Unintentional residential child injury surveillance in Hong Kong. *J Paediatr Child Health, 39*(6), 420-426
- GadAllah, A. M. (2020). The Epidemiology of Unintentional Home Injuries among Children Aged 0 - 14 Years in Assiut Governorate, Egypt: A Community-Based Cross-Sectional Study. وبائيات الإصابات المنزلية غير المتعمدة بين الأطفال منذ الولادة وحتى سن الرابعة عشر في محافظة أسيوط، مصر: دراسة مجتمعية مستعرضة، ١٣٩-١٢٧، (١)٤  
doi: 10.26389/AJSRP.A031219
- Hendrickson, S. G. (2008). Maternal Worries, Home Safety Behaviors, and Perceived Difficultie. *JOURNAL OF NURSING SCHOLARSHIP, 40*,
- Hyder, A. (2009). Global childhood unintentional injury surveillance in four cities in developing countries: a pilot study. *Bulletin of the World Health Organization, 87*(5), 345-352
- doi: 10.2471/blt.08.055798
- Liebelt, E. L., & DeAngelis, C. D. (1999). Evolving trends and treatment advances in pediatric poisoning. *JAMA, 282*(12), 1113-1115
- Lindqvist, K., Timpka, T., Schelp, L., & Risto, O. (2002). Evaluation of a child safety program based on the WHO Safe Community model. *Injury Prevention, 8*(1), 23-26. doi: 10.1136/ip.8.1.23
- Lindqvist, K. S. (1989). Epidemiology of accidents in a Swedish municipality. *Accid Anal Prev, 21*(1), 33-43



- 
- Litovitz, T. L., Klein-Schwartz, W., White, S., Cobough, D. J., Youniss, J., Drab, A., & Benson, B. E. (2004). 1999 Annual report of the American Association of Poison Control Centers toxic exposure surveillance system. *The American journal of emergency medicine*, 22(5), 335-404
  - Mohammad Ahmad, A. A., Maram Mohammed, A. A., Norah Aedh, A., Maha Mohammed Abdullah, A., Asma Mosfer, A., Abdullah Mohammed, A. A., . . . Rishi Kumar, B. (2018). Pattern of Accidents in Children Less than 14 Years in Abha City, Kingdom of Saudi Arabia (pp. ): Sumathi Publications.
  - Murray, C. J. L., Barber, R. M., & Foreman, K. J. (2015). Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990–2013: quantifying the epidemiological transition. *The Lancet*, 386(10009), 2145-2191
  - doi: [https://doi.org/10.1016/S0140-6736\(15\)61340-X](https://doi.org/10.1016/S0140-6736(15)61340-X)
  - National Center for Injury Prevention and Control, C. u. W. (2015). 10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2015.
  - Oseni, O. G., Olamoyegun, K. D., & Olaitan, P. B. (2017). PAEDIATRIC BURN EPIDEMIOLOGY AS A BASIS FOR DEVELOPING A BURN PREVENTION PROGRAM. *ÉPIDÉMIOLOGIE DES BRÛLURES CHEZ L'ENFANT AFIN DE CIBLER UN PROGRAMME DE PRÉVENTION.*, 30(4), 247-249
  - Pant, P. R., Towner, E., Pilkington, P., & Ellis, M. (2015). Epidemiology of unintentional child injuries in the South-East Asia Region: a systematic review. *Int J Inj Contr Saf Promot*, 22(1), 24-32
  - doi: 10.1080/17457300.2013.842594
  - Philbrook, J. K. (2011). Injury Prevention for Infants and Children Family Members. *Encyclopedia of Family Health*, . doi: 10.4135/9781412994071.n221
  - Taylor, J. L. (2011). *Impact of multiple children on parental supervision practices, parental developmental competence, and unintentional injury risk.* (3489464 Ph.D.), University of Missouri - Saint Louis, Ann Arbor. Retrieved from <https://search.proquest.com/docview/915644076?accountid=142908>



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- Truba, N. (2016). *Increasing caregiver supervision of young children: Teaching scanning, predicting behavior, and modifying for safety.* (10294794 Ph.D.), Western Michigan University, Ann Arbor. Retrieved from <https://search.proquest.com/docview/1841907360?accountid=142908>
  - Whiteside-Mansell, L., Johnson, D., Aitken, M. M., Bokony, P. A., Conners-Burrow, N., & McKelvey, L. (2010). Head Start and Unintended Injury: The Use of the Family Map Interview to Document Risk. *Early Childhood Education Journal*, 38(1), 33-41
  - doi: 10.1007/s10643-010-0380-6