



Multidimensional model to assess the readiness of Saudi Arabia to implement evidence based child maltreatment prevention programs at a large scale

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ABSTRACT

There has been increased awareness of child maltreatment in Saudi Arabia recently. This study assessed the readiness for implementing large-scale evidence-based child maltreatment prevention programs in Saudi Arabia. Key informants, who were key decision makers and senior managers in the field of child maltreatment, were invited to participate in the study. A multidimensional tool, developed by WHO and collaborators from several middle and low income countries, was used to assess 10 dimensions of readiness. A group of experts also gave an objective assessment of the 10 dimensions and key informants' and experts' scores were compared. On a scale of 100, the key informants gave a readiness score of 43% for Saudi Arabia to implement large-scale, evidence-based CM prevention programs, and experts gave an overall readiness score of 40%. Both the key informants and experts agreed that 4 of the dimensions (attitudes toward child maltreatment prevention, institutional links and resources, material resources, and human and technical resources) had low readiness scores (<5) each and three dimensions (knowledge of child maltreatment prevention, scientific data on child maltreatment prevention, and will to address child maltreatment problem) had high readiness scores (≥5) each. There was significant disagreement between key informants and experts on the remaining 3 dimensions. Overall, Saudi Arabia has a moderate/fair readiness to implement large-scale child maltreatment prevention programs. Capacity building; strengthening of material resources; and improving institutional links, collaborations, and attitudes toward the child maltreatment problem are required to improve the country's readiness to implement such programs.

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There has been a major shift in the field of child maltreatment (CM) with increased focus and efforts now on the prevention of CM as opposed to waiting to provide support, services, and management to victims of abuse (Aleissa & Almuneef, 2010; Almuneef & Aleissa, 2011; Geeraert, Noortgate, Grietens, & Onghena, 2004; Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002; Shaw & Kilburn, 2009; World Health Organization [WHO], 2004). CM prevention (CMP) now appears to be a public health priority for many international, regional, and local violence prevention agencies.

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Many cases of CM are preventable. Evidence from high-income countries shows a strong relationship between prevalence of CM and potentially modifiable factors such as economic inequality, parental illiteracy, and poor monitoring and parental supervision of children (Anda et al., 2006; Gilbert et al., 2009; MacMillan et al., 2007; Mikton & Butchart, 2009; WHO, 2008). Scientific research shows that programs addressing the underlying causes of CM are effective in reducing the rate and the number of new cases in addition to reducing the long term negative health consequences of CM (Geeraert et al., 2004). This in turn eventually leads to improving the economy of a country (Kilburn & Karoly, 2008; Knudsen, Heckman, Cameron, & Shonkoff, 2006).

In low-middle income countries (LMIC), the level of awareness is low, social services are not properly organized, and the rate of CM is high (Runyan, 2008; Runyan & Eckenrode, 2004). Therefore large numbers of children are affected and many others are at risk of CM. Effective prevention programs at the individual, family, and community levels should be given priority in LMIC strategies and directed not only at high-risk groups but to the population at large.

Saudi Arabia began to address CM in the last decade, and the services have focused mainly on child protection with little effort being directed toward child maltreatment prevention—i.e. preventing child maltreatment even before it arises by addressing upstream causes (Albuhairan, Inam, Aleissa, Noor, & Almuneef, 2011; Almuneef & Aleissa, 2011; Mikton et al., 2011). Thus, CMP programs need to be expanded in Saudi Arabia in order to have the greatest impact nationally. To shift the focus from protection to prevention strategies, the readiness of the country's resources and critical domains should be appraised.

The readiness assessment for the prevention of CM is a method to assess how *ready* a country is, particularly for those who only recently began to address CM, in implementing evidence-based child maltreatment prevention programs on a large scale. Once this has been established, the next step would be to increase readiness on dimensions with low scores and to further strengthen dimensions with higher scores, then implement evidence-based child maltreatment prevention programs on a scale commensurate with the magnitude of the problem as well as the capability of the country.

The objective of this study is to assess the readiness of Saudi Arabia to implement large-scale, evidence-based child maltreatment prevention programs using a systematic method based on a multidimensional model prepared by the WHO in collaboration with five LMICs: Saudi Arabia, Brazil, South Africa, Malaysia, and republic of Macedonia (Mikton et al., 2011).

Methods

This study was conducted in Saudi Arabia in 2011.

Participants

Participants consisted of key informants and experts. The key informants were individuals from stakeholder groups involved in various aspects of CM protection and prevention. A list of stakeholders was developed and included Ministries, such as the ministries of health, social affairs, interior, and education; other governmental agencies, such as National Childhood Council (NCC) and National Society for Human Rights (NSHR); nongovernmental organizations (NGOs) such as Child Protection Society and Saudi Pediatrics Association; and regional offices of international agencies such as Arab Gulf Fund for United Nation Development (AGFUND) and United Nations International Children's Emergency Fund (UNICEF). The international agencies were grouped with the NGOs for analysis purposes.

Through convenience sampling, we identified 50 key decision-makers from the stakeholder organizations and who were involved directly or indirectly in child maltreatment issues. These individuals were invited to participate in the study. One of the investigators contacted and invited potential participants either by a phone call or Upon agreeing to participate, a meeting was scheduled for each key-informant with one of the investigators. Each meeting lasted 60–90 min. In the meeting, each key-informant was interviewed using a multidimensional data collection tool.

The experts were four people who carried out this study in Saudi Arabia. Three were clinicians and researchers, and one was as sociologist and public health specialist. The experts held a meeting and discussed the available resources and the actual situation of CM in Saudi Arabia. Based on all or the best available data and the consensus opinion of the expert team, they completed one unified questionnaire, which reflects the experts' opinions.

Data collection tool

The Readiness Assessment for the Prevention of Child Maltreatment (RAP-CM) is a multidimensional model questionnaire that was developed by Violence and Injury Prevention Department of the WHO in collaboration with five LMICs (Saudi Arabia, South Africa, Brazil, the Former Yugoslav Republic of Macedonia, and Malaysia). The instrument was developed in a five-stage process that required three meetings in WHO headquarters attended by experts in the field from WHO and the five countries (Mikton et al., 2011). The final version of the questionnaire is comprised of more than 100 items, nested within 10 dimensions, which assessed the CMP situation in the country: (a) attitudes toward CMP; (b) knowledge of CMP; (c) scientific data on CMP; (d) current program implementation and evaluation; (e) legislation, mandates, and policies; (f) will to address CM problem; (g) institutional links and resources; (h) material resources; (i) human and technical resources; and (j) informal social resources (non-institutional). Each dimension had a total score of 10; thus the highest overall score was 100 (Box 1). The research team from WHO calculated the scores for each dimension and the total score for each country.

Box 1: The 10 dimensions of CMP – readiness assessment prepared in collaboration with WHO.

Dimension 1: Attitudes toward child maltreatment and its prevention – including, for instance, understanding of the difference between child maltreatment prevention and child protection; perceived priority of child maltreatment prevention, adequacy of measures taken to date to prevent child maltreatment.

Dimension 2: Knowledge about child maltreatment and its prevention – including, for instance, the nature of, prevalence of, risk factors for, and consequences of CM, and the appropriateness of different prevention programs.

Dimension 3: Existence of scientific data on child maltreatment and its prevention in the country, e.g. data on magnitude & distribution of CM; short and long term consequences of CM; risk and protective factors for and causes of CM; official definitions of CM; reporting systems.

Dimension 4: Existing child maltreatment prevention programs and programs into which CMP components could be integrated and outcome evaluations of these programs.

Dimension 5: Legislation, official mandates of governmental or non-governmental agencies, **and policies** relevant to CMP.

Dimension 6: Will to address the problem including leadership, political and public will, advocacy, and communications efforts.

Dimension 7: Institutional links (e.g., coalitions, partnerships and networks dedicated to CMP) **and resources** of institutions involved in CMP.

Dimension 8: Material resources, including funding, infrastructure and equipment.

Dimension 9: Human and technical resources, including professionals with the required technical, administrative, and managerial skills, knowledge, and expertise and the institutions that enable the acquisition of such skills and knowledge.

Dimension 10: Informal social resources (e.g., citizen participation, social capital, collective efficacy). When assessing readiness and capacity, it is generally considered as important to focus on the quality of social interactions and social bonds within a community or society as it is on specific assets for child maltreatment prevention readiness such material resources, and legislation and policies.

The questionnaire was translated into Arabic, back-translated into English, and tested prior to conducting the study. The interviews were conducted either in Arabic or English, depending on the language preference of the interviewee.

This study was approved by the Institutional Review Board (IRB) at King Abdulaziz International Medical Research Center of the National Guard Health Affairs of Saudi Arabia.

Data analysis

The data was analyzed using SPSS version 19. The data were also sent to WHO for coding and re-analysis for quality assurance. For each question, the number of respondents in each response category and their total scores were generated. We calculated the score for each question and each dimension and the overall score of the 10 dimensions. The total scores were reported on a scale of 100. To assess the agreement between the key informants and experts, the scores of the dimensions were categorized into two categories: a mean score of five or higher, which represents a high readiness and a mean score below five, representing low readiness for each dimension on a scale of 1–10. The percent agreement between the key informants and experts on the total scores of the dimensions was calculated.

Results

Of 50 key stakeholders approached, 41 completed the interview, giving a response rate of 82%. Nine were either difficult to reach ($n=2$), refused to participate ($n=4$), or initiated the interview but failed to complete it ($n=3$). The face-to-face interview took between 60 and 90 min to complete. Twenty three (56%) were males and 18 (44%) were females; 31 (76%) were government employees and 10 (24%) were NGO employees (Fig. 1). The key informants were mostly senior and mid-level managers in various ministries (Box 2). The majority of key informants, 17 (42%), had 1–5 years experience in CMP, 11 (27%) had 6–10 years, and 13 (32%) had 11 years or more experience in CMP. The number and percentages of key informants who had 1–5 years, 6–10 years, and 11 years or more experience in CM protection were comparable to that of prevention.

On a scale of 100, the overall scores of the 10 dimensions for the key informants and experts were 43% and 40%, respectively (Table 1). The key informants gave a low mean score (<5) on six dimensions (Fig. 2), of which two dimensions had a very low mean score (≤ 2): current prevention programs implementation and evaluation (2.0) and human resources (1.9). The other dimensions with low scores were: material resources (3.6), attitudes toward the problem (4.1), institutional links and collaborations (4.9), and informal social resources such as volunteering (4.1). Key informants gave high mean scores (≥ 5) to the remaining four dimensions: knowledge of CMP (6.5); availability of scientific data on CMP (6.0); existence of legislation, mandates, and policies (5.2); and will to address the CM problem (5.4).

The experts gave a high mean score (≥ 5) to five dimensions: knowledge of CMP (5.0), availability of scientific data (5.0), current program implementation and evaluation (5.3), will to address the problem (5.9), and informal social resources (6.0).

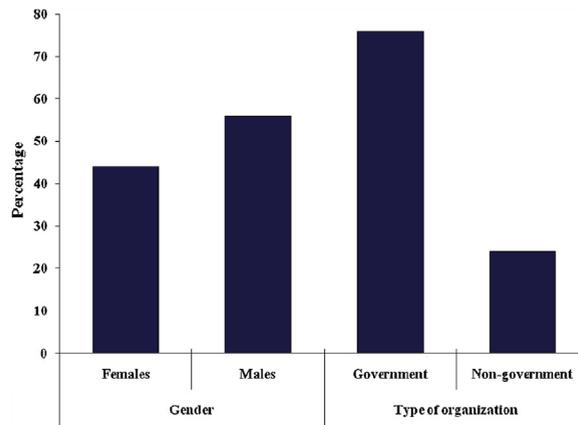


Fig. 1. Distribution of participants by gender and type of organization.

Box 2	
Position in the organization	Number persons
1. Senior managers	14
2. Mid-level managers	8
3. Healthcare providers	6
4. Social workers & volunteers	5
5. Judges and legal advisors	3
6. Policy makers/legislators	2
7. Media and communication specialists	2
8. Treasurers	1
Total	41

Table 1
Experts and key informant raw scores and mean scores on a scale of 1–10 in the ten dimensions.

	Key informants		Experts	
	Raw score	Score on a scale of 1–10	Raw score	Score on a scale of 1–10
Dimension 1: Attitudes toward child maltreatment prevention	5.7/14	4.1	2.0/12	1.7
Dimension 2: Knowledge of child maltreatment prevention	9.8/15	6.5	3.0/6	5
Dimension 3: Scientific data on child maltreatment prevention	13.2/15	6	11.0/22	5
Dimension 4: Current program implementation and evaluation	5.96/30	2	16/30	5.3
Dimension 5: Legislation, mandates, and policies	6.2/12	5.2	4.0/12	3.3
Dimension 6: Will to address the problem	13/24	5.4	13/22	5.9
Dimension 7: Institutional links and resources	9.25/19	4.9	26.5/74	3.6
Dimension 8: Material resources	4.7/13	3.6	4.0/14	2.9
Dimension 9: Human and technical resources	2.3/12	1.9	2.0/12	1.7
Dimension 10: Informal social resources (non-institutional)	4.1/10	4.1	6.0/10	6
Mean	74.3/171	43	87.5/214	40.4

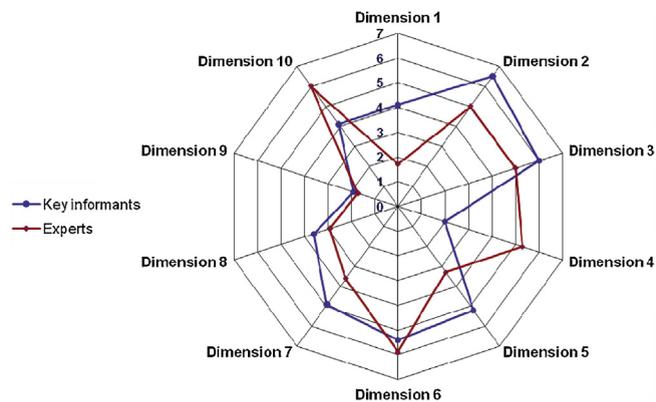


Fig. 2. Mean scores, on a scale of 1–10, for the key informants and experts on the ten dimensions, Saudi Arabia.

The key informants and experts agreed on seven dimensions with respect to low or high mean scores. There was significant disagreement, however, on the mean scores of the following three dimensions: legislations, mandates, and policies; availability of current prevention programs; and informal social resources.

Discussion

Ten important dimensions in CMP were assessed in this study. Combined, we found that key informants and experts' opinions of the country's readiness for implementing CMP programs were more or less aligned, with key informants and experts reporting 43% and 40% readiness, respectively. These percentages represent a moderate/fair level of readiness, especially taking into account that CM in Saudi Arabia and addressing the problem officially occurred only within the last decade.

This score is comparable to the scores obtained by other countries in which the study was conducted. Key informant scores ranged from 31.2 (Brazil) to 45.8 (the Former Yugoslav Republic of Macedonia) and expert scores, from 35.2 (Brazil) to 56 (Malaysia). Saudi Arabia was in fact ranked third among the five countries in terms of its readiness to implement large-scale CMP programs based on key informants – with the other countries having the following rankings: Macedonia, 1st; Malaysia, 2nd, South Africa, 4th, and Brazil, 5th. Based on the experts' assessment, Saudi Arabia was ranked 4th, while Malaysia was 1st, Macedonia 2nd, South Africa 3rd, and Brazil 5th (WHO, 2012). Unlike Saudi Arabia, all four country experts' scores were higher than their key informants ranging from 35% to 56% (WHO, 2012). The slightly higher score of the key informants in Saudi Arabia compared to the experts may be attributed to the fact that most of the key informants were government employees (76%) and may have overestimated the situation in comparison to the researchers who used all available data to evaluate the situation objectively. In the other four countries, most of the key informants were nongovernmental officials and tended to evaluate the situation more critically.

Knowledge on CMP, data collection, and political will appears to be the strength of the country, and hence, all were given high scores by both the key informants and the experts. With regards to knowledge, the key informants had good scientific information on CM, in general, and CMP, in particular, which they developed through their involvement in CM programs and training in addition to management of the cases. This finding is a good reflection of their vested interest and shared knowledge and understanding of the issue of CM, which is in agreement with the experts. The good score obtained for this dimension by both the expert and the key informants is a positive start in implementing evidence-based CMP programs at a national level. On the dimension related to data collection, both key informants and experts gave high readiness scores. The National Family Safety Registry was only initiated in the Kingdom in 2009, but all of the stakeholders were involved and well informed about it.

This national registry is a webpage data collection tool designed for surveillance and collection of data from 41 child protection centers accredited in major hospitals across the nation. Healthcare providers and education system employees are currently mandated to report all suspected cases of CM in the registry (Aleissa & Almuneef, 2010). Furthermore, there is an increase in the number of research studies in this field, which has generated high-quality scientific data. Yet, to date, no surveys are conducted to estimate the prevalence or incidence of CM across the 13 provinces in Saudi Arabia. Most of the available data are scattered and limited in scope. Thus, improvement in data collection and research are still needed despite its high readiness score. Ever since the media began to shed light on CM in 2000 (Almuneef & Aleissa, 2011), many political leaders joined in and supported the initiatives as evidenced by the creation of many governmental and NGOs with CMP as one of their main objectives. Many key informants and experts identified specific political leaders that supported the initiation of CMP programs and both gave this dimension a high score.

The readiness assessment indicated that attitude toward CM, institutional links, and collaborations and human and material resources probably need further improvement before the initiation of large-scale, evidence-based child maltreatment prevention programs in Saudi Arabia. Material, human, and technical resources received the lowest scores from both the key informants and the experts, which indicates major deficiencies in these areas. This finding is not surprising given that the CM problem has only recently been recognized in the country. Capacity development is essential in achieving CMP success. Efforts to build human capacity must be intensified in the 13 provinces of the country and should maximize the use of evidence-based training resources and programs (International Society for the Prevention of Child Abuse and Neglect, 2011; WHO, 2005). The National Family Safety Program initiated multidisciplinary training programs in 2007, and since then, over 1200 professionals from different specialties and sectors have been trained. A measurable effect of such training programs is expected to take a long time in Saudi Arabia, as the ratio of trained professionals to the population is still low. Emphasis should be made to ensure that material and technical resources are available in remote areas of the country and not only in major cities, as is the case currently. This expansion of the availability of resources in less densely populated areas should be complemented by the development of mechanisms for building institutional and systems capacity, especially at the national level. Changing the attitude of professionals working with and for children and the public in general is not a daunting task. Therefore, far-reaching and evidence-based awareness campaigns should be implemented in all provinces and should reach a wide range of people. Media campaigns highlighting the seriousness of the problem and urgency of its intervention should be targeted at policy makers and law enforcement agencies. This could influence their attitudes toward the problem. Institutional partnerships and alliances have not yet been developed adequately in the country and is expected to take a long time to reach its maximum effectiveness. Information collected from the key informants has to be interpreted and acted upon cautiously. The information comes from ($n = 41$) key informants who were chosen because of their expertise

and involvement in CM activities. In spite of the valuable information given by these key informants, a different picture could be found if the same survey is given to different groups of key informants or to the general public. Because the issue requires knowledgeable individuals that could provide a comprehensive assessment of the situation of CMP in Saudi Arabia, the general public are not, generally, appropriate to provide such information. Yet, having such multidimensional tool to assess prevention readiness is a very powerful instrument for any country to move forward and allocate specific funds to implement prevention programs. Such results will be used to convince decision makers to improve the function of each dimension for the benefit of our children.

Conclusion

Saudi Arabia has a moderate level of readiness to implement large-scale, evidence-based CMP programs. Several dimensions need to be strengthened prior to and throughout the implementation of such prevention programs. The country should start with a small-scale CMP programs at a community level which could pave the way for the development of large-scale evidence-based CMP programs for Saudi Arabia. This could prevent many children from becoming victims of maltreatment and empower parents and other sectors of the society to contribute to prevent such actions from happening.

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References

- Albuhairan, F. S., Inam, S. S., Aleissa, M. A., Noor, I. K., & Almuneef, M. A. (2011). Self-reported awareness of child maltreatment among school professionals in Saudi Arabia: Impact of CRC ratification. *Child Abuse & Neglect*, *12*, 1032–1036.
- Aleissa, M., & Almuneef, M. (2010). Child abuse and neglect in Saudi Arabia: Journey of recognition to implementation of national prevention strategies. *Child Abuse & Neglect*, *34*, 28–33.
- Almuneef, M., & Aleissa, M. (2011). Preventing child abuse and neglect in Saudi Arabia: Are we ready? *Annals of Saudi Medicine*, *31*(6), 635–640.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. K., Whitfield, C., & Perry, B. D. (2006). The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. *European Archives of Psychiatry and Clinical Neuroscience*, *256*, 174–186.
- Geeraert, L., Noortgate, W. V., Grietens, H., & Onghena, P. (2004). The effects of early prevention programs for families with young children at risk for physical child abuse and neglect: A meta-analysis. *Child Maltreatment*, *9*, 277–291. <http://dx.doi.org/10.1177/1077559504264265>
- Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *Lancet*, *737*(9657), 68–81.
- International Society for the Prevention of Child Abuse and Neglect (ISPCAN). (2011). *ISPCAN training materials*. Retrieved from <http://www.ispcan.org>
- Kilburn, M. R., & Karoly, L. A. (2008). *The economics of early childhood policy: What the dismal science has to say about investing in children*. Santa Monica, CA: Rand Corporation.
- Knudsen, E. I., Heckman, J. J., Cameron, J. L., & Shonkoff, J. P. (2006). Economic, neurobiological, and behavioral perspectives on building America's future workforce. In *Proceedings of the National Academy of Sciences* *103*, (pp. 10155–10162).
- Krug, E. G., Dahlberg, L. L., Mercy, J. A., Zwi, A. B., & Lozano, R. (2002). *World report on violence and health*. World Health Organization. Retrieved from <http://www.who.int>
- MacMillan, H. L., Jamieson, E., Wathen, C., Boyle, M., Walsh, C., & Omura, J. (2007). Development of a policy-relevant child maltreatment research strategy. *Milbank Quarterly*, *85*, 337–374. <http://dx.doi.org/10.1111/j.1468-0009.2007.00490.x>
- Mikton, C., & Butchart, A. (2009). Child maltreatment prevention: A systematic review of reviews. *Bulletin of the World Health Organization*, *87*, 353–361. <http://dx.doi.org/10.2471/BLT.08.057075>
- Mikton, C., Mehra, R., Butchart, A., Addiss, D., Almuneef, M., Cardia, N., Cheah, I., Chen, J. Q., Makoae, M., & Raleva, M. (2011). A multidimensional model for child maltreatment prevention readiness in low- and middle-income countries. *Journal of Community Psychology*, *39*, 826–843.
- Runyan, D. K. (2008). The challenges of assessing the incidence of inflicted traumatic brain injury. *American Journal of Preventive Medicine*, *34*, S112–S115. <http://dx.doi.org/10.1016/j.amepre.2008.01.011>
- Runyan, D. K., & Eckenrode, J. (2004). International perspectives on the epidemiology of child neglect and abuse. *Annales Nestle*, *62*, 1–12.
- Shaw, R., & Kilburn, R. (2009). Child abuse and neglect prevention: Reports from the field and ideas for the future. *RAND Child Policy*. Retrieved from <http://www.rand.org>
- WHO. (2004). *Preventing violence: A guide to implementing the recommendations of the world report on violence and health* Retrieved from <http://www.who.int>. World Health Organization.
- WHO. (2005). *TEACH-VIP: Users manual* Retrieved from <http://www.who.int>. World Health Organization.
- WHO. (2008). *Preventing violence and reducing its impact: How development agencies can help* Retrieved from <http://www.who.int>. World Health Organization.
- WHO. (2012). *Technical report on the assessment of readiness to implement evidence-based child maltreatment prevention programmes of Brazil, the former Yugoslav Republic of Macedonia, Malaysia, Saudi Arabia, and South Africa* Retrieved from <http://www.who.int>. World Health Organization.