



A qualitative exploration of factors that facilitate and impede adherence to child abuse prevention guidelines in Dutch preventive child health care

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Abstract

Rationale, aims and objectives In the Netherlands, evidence-based child abuse prevention (CAP) guidelines have been developed to support child health care professionals (CHPs) in recognizing and responding to suspected child abuse. The aim of this study was to identify factors related to characteristics of the guidelines, the user, the organization and the socio-political context that facilitate or impede adherence to the CAP guidelines.

Methods Three semi-structured focus groups including 14 CHPs working in one large Dutch child health care organization were conducted in January and February 2012. Participants were asked questions about the dissemination of the guidelines, adherence to their key recommendations and factors that impeded or facilitated desired working practices. The interviews were audiotaped and transcribed. Impeding and facilitating factors were identified and classified. An innovation framework was used to guide the research.

Results CHPs mentioned 24 factors that facilitated or impeded adherence to the CAP guidelines. Most of these factors were related to characteristics of the user. Familiarity with the content of the guidelines, a supportive working environment and good inter-agency cooperation were identified as facilitating factors. Impeding factors included lack of willingness of caregivers to cooperate, low self-efficacy and poor inter-agency cooperation.

Conclusions The results indicate that a broad variety of factors may influence CHPs' (non-)adherence to the CAP guidelines. Efforts to improve implementation of the guidelines should focus on improving familiarity with their contents, enhancing self-efficacy, promoting intra-agency cooperation, supporting professionals in dealing with uncooperative parents and improving inter-agency cooperation. Recommendations for future research are provided.

Introduction

Child abuse is a considerable problem across the world [1–3]. In the Netherlands, approximately 1 in 30 children between the ages of 0 and 19 is abused every year [4]. Child abuse may cause long-lasting physical and psychological damage to individual children (e.g. [5–7]) and may also result in economic costs for society [8]. Policy makers therefore agree that efforts should be made to stop child abuse.

Professionals working with families play an important role in the prevention of child abuse. However, they do not always

recognize child abuse [9], or do not respond adequately when they have suspicions (e.g. [10,11]). As a result, vulnerable children and families may not get the support they need.

Clinical guidelines may improve the quality of professional decision making [12–15]. In 2010, the National Institute for Public Health and the Environment and the Netherlands Centre for Youth Health introduced extensive evidence-based clinical guidelines on early detection of and responses to suspected child abuse in preventive child health care [henceforth, the child abuse prevention (CAP) guidelines] [16]. Dutch preventive child health care professionals (CHPs), doctors and nurses offer preventive child health

care services in child health clinics and schools. CHPs are in an ideal position to recognize and respond to suspected child abuse, as they have contact with approximately 95% of Dutch children on a regular basis [17,18].

Key recommendations in the CAP guidelines include registration of facts and observations that underpin suspicions, talking with parents and/or children about suspicions, consulting a colleague (preferably an expert on child abuse), and consulting the Dutch Child Protection Services (CPS). CHPs may also contact other professionals involved with the family if parents permit this. If suspicions persist, CHPs should organize a second meeting with parents and/or the child, provide support, refer the family to other organizations for support or report their suspicions to CPS. CHPs need to monitor the support that is provided to the family and act again if they feel that the support is insufficient. All their activities should be registered in the electronic child health care record. The CAP guidelines also include background information and a time-phased decision tree. From July 2013, CHPs and other professionals working with families are obliged by law to follow the guidelines if their suspicions persist [19].

Despite efforts to improve implementation, professionals do not always adhere to clinical guidelines. To gain a better understanding of professional adherence to innovations in health care, including new guidelines, Fleuren *et al.* [20] developed a theoretical framework. This framework unites several theories and models (e.g. [21–23]) and has been shown to be suitable for studying innovation in Dutch (child) health care [24,25]. The framework distinguishes four stages of the innovation process (dissemination, adoption, implementation and continuation). It also lists four categories of factors, or so-called determinants, that may facilitate or impede the transition from one stage to the next: characteristics of the innovation, the adopting person, the organization and the socio-political context.

Guidelines or protocols that aim to support professionals in responding to child abuse also exist in other countries [26–29]. However, research on adherence to guidelines in relation to CAP is scarce. One study that did evaluate a set of guidelines on positive parenting and family violence prevention indicated multiple barriers to using the guidelines, related to guideline characteristics (complex structure) and organizational characteristics (lack of time and competing agency demands and priorities) [28].

Although little is known about adherence to CAP guidelines, numerous studies have focused on factors impeding professionals' decision making in relation to reporting child abuse to CPS. These factors include poor knowledge of the symptoms of child abuse [30,31], feelings of loyalty towards the family [32], low perceived self-efficacy [33], poor knowledge of reporting laws and processes [34,35], being threatened with a law suit or having testified in child abuse cases [34], and being in practice for longer [34]. Multiple studies have found that professionals feel reluctant to report suspected child abuse to CPS because of negative attitudes and low trust towards CPS, negative experiences, inadequate feedback or delayed investigations [9].

Insight into the relevant determinants for successful implementation allows health care organizations to develop strategies tailored to these determinants in order to achieve desired work practices [20]. It is as yet unclear whether and for what reasons CHPs do or do not adhere to the recommendations of the CAP guidelines. Therefore, the current study aims to identify factors

that facilitate or impede CHPs' adherence to the CAP guidelines. We used a qualitative design. The framework by Fleuren *et al.* [20] was used to guide the research.

Methods

Study design

We conducted three focus groups of CHPs in January and February 2012. These CHPs all worked at one preventive child health care organization covering the Twente region in the Netherlands (henceforth, GGD Twente). According to the criteria of Dutch Medical Research Involving Human Subjects Act, this study did not need to be submitted for ethical approval by a Medical Ethical Committee [36].

Participants

GGD Twente has been working with the CAP guidelines since 2010. During the study period, 54 child health care doctors and 125 child health care nurses were employed by GGD Twente. In 2012, these CHPs were providing preventive child health care services to approximately 152 000 children between the ages of 0 and 19. All 179 CHPs were invited to participate in a focus group interview via an email from their manager. Two weeks later, a reminder was sent to the target population. CHPs were asked to participate on a voluntary basis. They were reimbursed for travel expenses and received a €20 gift voucher. The invitation to participate in the study informed CHPs about the research objectives. Fourteen CHPs, six doctors and eight nurses agreed to participate: three CHPs in focus group session 1, seven CHPs in focus group session 2 and four CHPs in focus group session 3. At the time of the focus groups, seven participants were working with children up to the age of 4 and seven were working with older children. All participants were women with experience as a CHP ranging from 1 year to over 20 years. In all the sessions, all the participants actively engaged in the group discussions.

Interview schedule

A semi-structured interview schedule was developed to guide the focus group discussion and to ensure comparability of the three sessions. A time schedule was included to ensure that every interview question received enough attention. The questions were developed by the authors and pilot tested with a child health care doctor.

Conduct of sessions

Each session was guided by a different moderator: the first, second or fourth author. The sessions all started with introductions, followed by a 10-minute presentation to introduce the discussion topic, explain the study's purpose and provide instructions. The moderator guaranteed both confidentiality and anonymity before the actual discussion started. A research assistant made detailed notes during the discussions. The first part of each focus group session focused on dissemination of the CAP guidelines. The main question was 'In what way or ways have you become familiar with the guidelines?' The second part started with open questions to

Table 1 Interview schedule

| # | Interview questions |
|----|---|
| 1 | In what way or ways did you become familiar with the guidelines? |
| 2 | In what situations do you use the guidelines? |
| 3 | To what extent do you use the guidelines when you suspect child abuse? |
| 4 | The guidelines recommend talking to parents and/or children about your suspicions. What are your experiences with this recommendation? |
| 5 | The guidelines recommend consulting CPS when you suspect child abuse. What are your experiences with this recommendation? |
| 6 | The guidelines recommend collecting information from professionals who are involved with the family outside the child health care organization, when suspicions persist. What are your experiences with this recommendation? |
| 7 | The guidelines recommend consulting a child abuse expert in your organization when you suspect child abuse. What are your experiences with this recommendation? |
| 8 | The guidelines recommend providing support, referring the family to other organizations for support, or reporting suspicions to CPS when suspicions persist. What are your experiences with providing support? What are your experiences with referring a family to other organizations for support? What are your experiences with reporting suspicions to CPS? |
| 9 | The guidelines recommend requesting follow-up information, in case other organizations do not provide information after CHPs have referred a family for support or reported the family to CPS. What are your experiences with this recommendation? |
| 10 | What are your experiences and perceptions about the recommended time scales which are contained in the guideline? |
| 11 | How do you evaluate the guidelines in general? To what extent do you think there is information missing from the guidelines? In what ways do you think the guidelines could be improved? What is the most important barrier that you experience in working with the guidelines? |
| 12 | Do you have any final questions or points you would like to add to the discussion? |

CHP, child health care professional; CPS, Child Protection Services.

find out what kind of suspicions or what situations led participants to start using the guidelines. The sessions continued with questions about their experiences in performing key activities described in the guidelines. We asked the participants to elaborate on factors that facilitated or impeded them in adhering to the guidelines. The interview schedule can be found in Table 1. Each focus group session lasted approximately 2 hours, including the introduction and a 15-minute coffee break.

Data analysis

Focus group interviews were audiotaped with consent of the participants and literally transcribed. The analysis [37] was carried out using the software program Atlas.ti [38]. Two assessors independently read each transcript and coded text fragments. The first author analysed the transcripts first. A second assessor coded the same transcripts using the coding scheme provided by the first author. Impeding and facilitating factors were identified and classified using the revised taxonomy proposed by Fleuren *et al.* [25]. Text fragments that did not correspond with any of the 29 factors in this taxonomy were given separate codes. Differences in classification were discussed between the two assessors until consensus was reached.

Results

In total, 24 determinants that facilitated or impeded adherence to the recommendations in the CAP guidelines were identified, of which nine determinants were mentioned in all three focus group interviews or by seven participants or more. Nineteen of the 29 determinants presented by Fleuren *et al.* [25] were identified. Most

of the determinants were identified in the category of characteristics of the user (10 out of 11). Five determinants were identified in addition to the set of 29 determinants: concreteness and feasibility in the category of characteristics of the innovation, attitudes and routine in the category of characteristics of the user, and inter-agency cooperation in the category of the socio-political context. Table 2 gives a description of the 29 determinants described by Fleuren *et al.* [25], the five extra determinants identified in this study and the number of participants that identified facilitating and impeding factors.

Determinants related to characteristics of the innovation (CAP guidelines)

Three participants mentioned that the guidelines promote a working method that largely reflects existing practice. The most salient changes to their working procedures included the recommendation to consult a child abuse expert in the organization and the time-phased decision tree in which the main recommendations are integrated. In general, participants had a positive attitude towards these changes. Therefore, these positively evaluated changes were not coded as impeding factors, although they were incongruent with their earlier work methods. Participants in one focus group interview discussed the feasibility of the recommended timeline. One participant claimed that, particularly in holiday periods, it is not always feasible to respond within the recommended time scale. In two focus group interviews, at least one element of the CAP guidelines was perceived as unclear. In one focus group, participants found the CAP guidelines to be incomplete. Three participants found the guidelines' references to specific instruments for support in recognizing child abuse

Table 2 Number of participants identifying a factor as facilitating or impeding adherence to the CAP guidelines

| Determinants | Description of the determinants | Facilitating factor (+) | Impeding factor (-) |
|---|---|-------------------------|---------------------|
| Determinants related to characteristics of the innovation | | | |
| 1. Clarity | Extent to which the procedures/guidelines of the innovation are clear | 2 | 7 |
| 2. Correctness | Extent to which the innovation is based on trusted knowledge | - | - |
| 3. Completeness | Extent to which the innovation contains the information and materials needed for its effective use | - | 3 |
| 4. Complexity | Extent to which the innovation is perceived as complex | - | 1 |
| 5. Compatibility | Extent to which the innovation is perceived as consistent with existing work procedures | 3 | 2 |
| 6. Observability | Extent to which the results of the innovation are observable to the health care professional | - | - |
| 7. Relevance client | Extent to which the innovation has added value for the client | - | - |
| <i>Feasibility</i> | Extent to which the innovation is perceived as both realistic and achievable | 1 | 2 |
| <i>Concreteness</i> | Extent to which the innovation is concrete rather than abstract or imaginary | - | 3 |
| Determinants related to the characteristics of the adopting person (user) | | | |
| 8. Personal (dis)advantage | Extent to which the innovation has (dis)advantages for the health care professional | 6* | 3 |
| 9. Outcome expectations | Extent to which the health care professional perceives the outcomes of the innovation as important and plausible | 1 | - |
| 10. Task orientation | Extent to which the innovation fits in the perceived task orientation of the health care professional | - | 3 |
| 11. Satisfaction client | Extent to which the health care professional expects or experiences that the client will be satisfied with the innovation | 2 | - |
| 12. Cooperation client | Extent to which the health care professional expects or experiences that the client will cooperate in the innovation | 2 | 11* |
| 13. Social support | Experienced or expected support of colleagues, professionals from other health care organizations, team leaders or higher management | 12* | 2 |
| 14. Descriptive norm | Perceived behaviour of colleagues with respect to the use of the innovation | - | 4 |
| 15. Subjective norm | The influence of important other professionals on the use of the innovation | - | - |
| 16. Self-efficacy | Confidence of the health care professional in the ability to perform the behaviour needed to use the innovation | 3* | 9* |
| 17. Required knowledge | Extent to which the health care professional has the knowledge needed to use the innovation | 3* | 2 |
| 18. Familiarity | Extent to which the health care professional is familiar with the content of the innovation | 11* | 7* |
| <i>Attitudes</i> | Expressions of affect towards the innovation in general or its specific recommendations | 7 | 1 |
| <i>Routine</i> | Extent to which the use of the innovation is integrated into daily practice of the health care professional | 2 | 7* |
| Determinants related to characteristics of the organization | | | |
| 19. Formal reinforcement by management | Formal reinforcement of the innovation by management, e.g. by integrating the innovation into organizational policies | 2 | 6 |
| 20. Staff turnover | Replacement of health care professionals who use the innovation and leave the organization | - | - |
| 21. Staff capacity | Staff capacity in the organization or department | - | - |
| 22. Financial resources | Financial resources made available for implementing the innovation | - | - |
| 23. Time | Time available for health care professionals to integrate the innovation in daily practice | - | 2 |
| 24. Availability of resources and services | Resources and services made available for health professionals to use the innovation, e.g. equipment, material or offices | 10* | 6* |
| 25. Coordinator | One or more persons charged with coordinating the implementation of the innovation within the organization | 9* | 3 |
| 26. Organization impetuosity | Extent to which other (organizational) changes took place during the implementation of the innovation, e.g. the implementation of multiple innovations simultaneously | - | 3 |
| 27. Information about innovation | Availability of information about the use of the innovation | - | - |
| 28. Feedback | Extent to which the organization provides feedback about the implementation to the health care professional | - | - |
| Determinants related to characteristics of the socio-political context | | | |
| 29. Rules and legislation | Extent to which the innovation fits into existing rules and legislation | - | - |
| <i>Inter-agency cooperation</i> | Perceptions about the cooperation with professionals from other organizations | 10* | 9* |

Italicized determinants are additional to the 29 determinants presented by Fleuren *et al.* [25].

*Factors identified in all three focus group sessions or by seven participants or more.

and decision making useful. One participant was quite negative about the CAP guidelines and had not adopted them. She perceived the guidelines as too rigid to apply in a wide variety of situations.

Determinants related to characteristics of the user

All participants were aware of the existence of the CAP guidelines and familiar with most of the main recommendations. However, familiarity with its more specific recommendations was poor. Four participants admitted to not having read the entire guidelines or to having only read the guidelines in preparation for the focus group interview. Overall, participants had positive attitudes towards the CAP guidelines, describing it as 'very nice', 'important', 'sensible', 'useful' and 'an improvement'.

Self-efficacy was identified in all focus groups as both a facilitating and an impeding factor. Participants found it difficult to recognize child abuse. They also experienced low self-efficacy when their suspicion of child abuse was primarily based on vague and ambiguous signals, in unusual situations about which the CAP guidelines do not provide information, when they need to talk to caregivers about their suspicions, when they need to plan follow-up meetings with caregivers and when they do not receive information from other child welfare organizations about suspected child abuse. Experience in responding to child abuse was mentioned as improving skills and self-efficacy, as this quote of a child health care doctor illustrates: '[. . .] then you will become increasing skilful and tend to experience less fear of making poor decisions'.

Poor willingness and/or ability of caregivers to cooperate was also identified as a barrier in all focus group interviews. In particular, participants found it difficult to meet the recommended time scales when caregivers did not attend appointments.

Social support was mentioned positively in all focus group interviews, particularly regarding child abuse expert consultation. A child abuse expert is a child health care doctor with additional education in early detection of child abuse who colleagues can consult. GGD Twente has had five permanent child abuse experts in post since 2009. Child abuse expert consultation was evaluated as both supportive and valuable. It was mentioned that child abuse experts can strengthen CHPs' confidence, can motivate CHPs to respond more quickly and can remind CHPs about other recommendations. However, child abuse experts were not consulted by the participants in all cases. Seven participants did not always think of it, consulted other colleagues instead, or just did not find child abuse expert consultation necessary. The telephone service for advice and consultation provided by the CPS was evaluated as accessible, personal, pleasant, supportive and guiding.

Personal advantages of the guidelines were mentioned by six participants in three focus group sessions and included expertise on child abuse, support in dealing with suspicions of child abuse, more motivated to respond quickly and legal coverage. Legal coverage refers to being able to justify actions to the court if necessary. A child health care doctor said: 'You are in a stronger position when you have discussed the case with professional colleagues, and this will also give you greater legal protection if your decisions are challenged'.

Determinants related to characteristics of the organization

The availability of resources and services was addressed in all focus group interviews, as both a facilitating and an impeding factor. In this study, this determinant refers to the availability and accessibility of the child abuse expert, registration options in the electronic child health care record and a safe working environment. Participants differed in their perceptions about the availability and accessibility of child abuse experts. Eight participants had positive reactions: child abuse experts have a flexible attitude, are approachable and easily accessible. However, three doctors found the availability and accessibility of the child abuse expert insufficient. Three participants mentioned the electronic child health care record as a supportive instrument for documenting their activities and important information. One doctor felt that the electronic child health care record has some flaws and that the system could be improved to better support professionals in responding to suspected child abuse.

CHPs working with children up to the age of four sometimes visit caregivers at home. Two nurses stated that they feel less safe and find it more difficult to discuss suspicions of child abuse in a home setting, compared with a child health care clinic. In a home setting, no colleagues are available for back up if a situation escalates. Also, CHPs have less control over the situation during a home visit, as a child health care nurse illustrates: 'This mother has an aggressive boyfriend [. . .]. When I am at the mothers' house, I hope that her boyfriend will not show up. When I mention the word CPS, they will burst with anger'.

Determinants related to characteristics of the socio-political context

Inter-agency cooperation was mentioned in all focus group interviews, particularly with the CPS. Ten participants had good experiences: communication went smoothly, the action plan was clear and CHPs were informed about the CPS' actions, such as research outcomes and referrals. However, nine participants had negative experiences: receiving no feedback or follow-up information from the CPS and feeling frustrated or not taken seriously when their report was rejected by the CPS. Difficulties in cooperating with other child welfare agencies concerned not involving preventive child health care (by mental health care, police and schools), too much focus on the caregivers' problems (by mental health care), receiving unlawfully obtained information (by schools), poor or slow action in response to suspected child abuse (by schools, child daycare), poor willingness to share information because of professional preciousness (by general practitioners), improperly delegating actions to CHPs (by schools), and no feedback (by the Child Protection Board).

Characteristics of innovation strategies

Most participants knew which person in the organization was responsible for the coordination of the implementation of the CAP guidelines. Most participants learned about the CAP guidelines during a presentation given by the implementation coordinator for the CAP guidelines or by child abuse experts. Child abuse experts

supported the coordinator in informing CHPs about the CAP guidelines and their role as child abuse experts.

Discussion

The goal of this study was to examine which factors facilitate or impede the adherence of Dutch CHPs to the CAP guidelines 2 years after their introduction in preventive child health care.

Facilitating and impeding factors relevant to (non-)adherence to guidelines

Analysis of the three focus group discussions showed that a broad variety of both facilitating and impeding factors affect adherence to recommendations in the CAP guidelines. In total, 24 determinants were found that facilitated and/or impeded adherence to the CAP guidelines.

Seventeen factors were identified that facilitated adherence to the CAP guideline. The results showed that most of the participants were pleased with the availability and quality of social support provided by child abuse experts and CPS. Child abuse expert consultation may be an important strategy in improving desired practice, as this may help CHPs to discuss their observations before they consider further action. Jones *et al.* [39] found that consultation may positively influence reporting behaviour.

Twenty-two factors that may hinder CHPs' adherence to the CAP guidelines were identified. The most frequently identified factors include poor familiarity with the contents of the guidelines, low self-efficacy, poor cooperation with parents and poor inter-agency cooperation. Although all participants were aware of the existence of the CAP guidelines, some of the participants were only partly familiar with their contents. Familiarity is a crucial factor and the first step towards desired behavioural change. According to Cabana *et al.* [40], guidelines first affect knowledge, then attitudes and finally behaviour. Rogers [41] and Fleuren *et al.* [20] also stated that an innovation needs to be disseminated before professionals can adopt it. Low confidence in the individuals' ability to carry out the guidelines' recommendations was also mentioned frequently. Self-efficacy is present in different psychological models that aim to predict behaviour, including the social cognitive theory by Bandura [42]. According to this theory, people avoid tasks when their self-efficacy is low and are more likely to perform tasks when their self-efficacy is high. A high self-efficacy is required to enable successful use of the guidelines. Nevertheless, despite training efforts, for most of the CHPs participating in the focus groups early detection of child abuse and communicating suspicions of child abuse to caregivers remained a challenge. Also, poor willingness or ability of caregivers to cooperate made it more difficult for professionals to respond within the recommended time scales. This factor was also identified by Saillour-Glenisson and Michel [43].

Responding to suspected child abuse can be a complex decision process and often requires the involvement of multiple organizations. Inter-agency cooperation was a dominant topic in all focus group interviews, especially in relation to CPS. In agreement with previous research [10,33–35,44–46], this study also demonstrates that poor cooperation with CPS can make professionals more hesitant to report their suspicions to CPS. Furthermore, the results suggest that cooperation with other child welfare organizations,

including general practitioners and teachers, can facilitate or impede professionals' adherence to guidelines.

Strengths and limitations

This study made a contribution to the scant empirical research available on adherence to CAP guidelines from the perspective of the CHP. Given that no systematic research has been published on adherence to CAP guidelines, we needed a qualitative research method to explore hidden reasons for (non)adherence. Focus groups fit the purpose of our study best, as this method provides the best opportunity for developing an in-depth understanding of people's viewpoints [47].

The results must be carefully interpreted in light of several limitations. First, one limitation of this study lies in the sampling bias, as the participants were self-selected. They may not be representative of the overall target population. Unfortunately, overall willingness to participate in the study was low. As a result, 14 instead of the desired 21 CHPs participated in the study. An advantage of a rather small group is that it gives each participant more time to raise facts and arguments [48]. Second, the retrospective self-report method is known for its validity problems. Participants may have been mistaken or may have misremembered relevant information. Nevertheless, the focus group approach has a high level of face validity. What participants say can be confirmed, reinforced or contradicted within the group discussion [49]. Third, the presence of other people can inhibit an individual and influence the way an answer is given, thus pushing participants to express more socially desirable and stereotypical answers [48,50]. However, as questions were not sensitive or very personal, we believe that the results were not strongly biased by this limitation. We aimed to limit threats to validity and reliability by developing a standard interview schedule with specified interview questions, to ensure replicability. A time schedule was integrated into the interview schedule to ensure that all interview questions got enough attention. Finally, the findings may not be completely applicable to CHPs working in other Dutch child health care organizations. In particular, perceptions about characteristics of the organization and the socio-political context may differ from CHPs from different organizations. However, perceptions about the guidelines and characteristics of the user will probably be applicable to CHPs in other child health care organizations as well.

Future research

The factors found in this study provide a basis for further research. Future research on adherence to the CAP guidelines should include CHPs from various preventive child health care organizations in the Netherlands, to validate and elaborate on the results from this study. To prevent misjudgement about the importance of particular determinants, both users and non-users should be included.

The framework by Fleuren *et al.* [20] proved to be useful in studying adherence to the CAP guidelines. It could also be valuable in studying adherence to similar guidelines in other countries. The degree of inter-agency cooperation may be a particularly important extra factor to take into account when implementing guidelines on CAP, as this determinant was mentioned frequently in both the focus group interviews and in the literature [10,30,34,44].

We found a broad variety of factors that impede or facilitate adherence to guidelines. To determine which factors should receive most attention in the development of innovation strategies, it is important to know which factors are crucial. Furthermore, some determinants, including familiarity, may influence adherence only indirectly as Cabana *et al.* [40] stated, or be particularly relevant to a specific stage in the innovation process [14,20]. Future research should therefore examine which factors significantly predict adherence to CAP guidelines using quantitative research methods.

Practical implications

Insight into relevant determinants may help preventive child health care organizations in developing appropriate and effective innovation strategies that are tailored to these determinants [20]. Implementation should focus on improving familiarity with the contents of the guidelines, enhancing self-efficacy, promoting consultation of child abuse experts, supporting professionals in dealing with uncooperative parents and improving inter-agency cooperation.

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References

- Stoltenborgh, M., van Ijzendoorn, M. H., Euser, E. M. & Bakermans-Kranenburg, M. J. (2011) A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child Maltreatment*, 16 (2), 79–101.
- Stoltenborgh, M., Bakermans-Kranenburg, M. J. & van Ijzendoorn, M. H. (2013) The neglect of child neglect: a meta-analytic review of the prevalence of neglect. *Social Psychiatry and Psychiatric Epidemiology*, 48, 345–355.
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L. R. A. & Van Ijzendoorn, M. H. (2012) The universality of childhood emotional abuse: a meta-analysis of worldwide prevalence. *Journal of Aggression, Maltreatment and Trauma*, 21 (8), 870–890.
- Alink, L. R. A., van Ijzendoorn, M. H., Bakermans-Kranenburg, M. J., Pannebakker, F. D., Vogels, T. & Euser, S. (2011). *Kindermishandeling in Nederland anno 2010: De Tweede Nationale Prevalentiestudie Mishandeling van Kinderen en Jeugdigen (NPM-2010)* (National report). Available at: http://www.tno.nl/downloads/npm_2010_samenvatting.pdf (last accessed 17 May 2013).
- Kendall-Tackett, K. A. (2000) Physiological correlates of childhood abuse: chronic hyperarousal in PTSD, depression, and irritable bowel syndrome. *Child Abuse and Neglect*, 24 (6), 799–810.
- Gould, F., Clarke, J., Heim, C., Harvey, P. D., Majer, M. & Nemeroff, C. B. (2012) The effects of child abuse and neglect on cognitive functioning in adulthood. *Journal of Psychiatric Research*, 46 (4), 500–506.
- Wolfe, D. A., Crooks, C. V., Lee, V., McIntyre-Smith, A. & Jaffe, P. G. (2003) The effects of children's exposure to domestic violence: a meta-analysis and critique. *Clinical Child and Family Psychology Review*, 6 (3), 171–187.
- Meerding, W. J. (2005) De maatschappelijke kosten van kindermishandeling. In *Kindermishandeling, de Politiek een Zorg* (eds H. Baartman, R. Bullens & J. Willems), pp. 46–64. Amsterdam: SWP.
- Fraser, J. A., Mathews, B., Walsh, K., Chen, L. & Dunne, M. (2010) Factors influencing child abuse and neglect recognition and reporting by nurses: a multivariate analysis. *International Journal of Nursing Studies*, 47 (2), 146–153.
- Feng, J. Y. & Wu, Y. W. B. (2005) Nurses' intention to report child abuse in Taiwan: a test of the theory of planned behavior. *Research in Nursing and Health*, 28 (4), 337–347.
- Lee, P. Y., Fraser, J. A. & Chou, F. H. (2007) Nurse reporting of known and suspected child abuse and neglect cases in Taiwan. *Kaohsiung Journal of Medical Sciences*, 23 (3), 128–137.
- Rycroft-Malone, J. & Duff, L. (2000) Developing clinical guidelines: issues and challenges. *Journal of Tissue Viability*, 10 (4), 144–149, 152.
- Wolf, S. H., Grol, R., Hutchinson, A., Eccles, M. & Grimshaw, J. (1999) Potential benefits, limitations, and harms of clinical guidelines. *BMJ (Clinical Research Ed.)*, 318 (7182), 527–530.
- Hader, J. M., White, R., Lewis, S., Foreman, J. L. B., McDonald, P. W. & Thompson, L. G. (2007) Doctors' views of clinical practice guidelines: a qualitative exploration using innovation theory. *Journal of Evaluation in Clinical Practice*, 13 (4), 601–606.
- Lee, A. C. W., Li, C. H. & So, K. T. (2006) The impact of a management protocol on the outcomes of child abuse in hospitalized children in Hong Kong. *Child Abuse and Neglect*, 30 (8), 909–917.
- Wagenaar-Fischer, M. M., Heerdink-Oberhuyzen, N., Kamphuis, M. & de Wilde, J. (2010) Preventive Child Health Care Guidelines Secondary Prevention Child Abuse (in Dutch). Bilthoven: National Institute for Public Health and the Environment.
- Burgmeijer, R. J. F., van Geenhuizen, Y. M., Filedt Kok-Weimar, T. & de Jager, A. M. (1997). *Op weg naar volwassenheid. Evaluatie Jeugdgezondheidszorg* (in Dutch).
- Reijneveld, S. A., de Meer, G., Wiefferink, C. H. & Crone, M. R. (2008) Detection of child abuse by Dutch preventive child-healthcare doctors and nurses: has it changed? *Child Abuse and Neglect*, 32 (9), 831–837.
- Mandatory Reporting Code Domestic Violence and Child Abuse (in Dutch) (2013) *Dutch Bulletin of Acts, Orders and Decrees*, 142, 1–16. Available at: http://www.eerstekamer.nl/behandeling/20130419/publicatie_wet/document3/f=vj8wcmf4cwxp.pdf (last accessed 28 April 2014).
- Fleuren, M. A. H., Wiefferink, K. & Paulussen, T. (2004) Determinants of innovation within health care organizations. Literature review and Delphi study. *International Journal for Quality in Health Care*, 16 (2), 107–123.
- Rogers, E. M. (1995) *Diffusion of Innovations*. New York: The Free Press.
- Logan, J. & Graham, I. D. (1998) Toward a comprehensive interdisciplinary model of health care research use. *Science Communication*, 20 (2), 227–246.
- Green, L. W. & Kreuter, M. W. (1999) *Health Promotion Planning: An Educational and Environmental Approach*. Mountain View: Mayfield.
- Rosman, A. N., Vlemmix, F., Beuckens, A., Rijnders, M. E., Opmeer, B. C., Mol, B. W. J., Kok, M. & Fleuren, M. A. H. (2014) Facilitators and barriers to external cephalic version for breech presentation at term among health care providers in the Netherlands: a quantitative analysis. *Midwifery*, 30 (3), e145–e150.
- Fleuren, M. A. H., Paulussen, T. G. W. M., Van Dommelen, P. & Van Buuren, S. (2012). Development of a Measurement Instrument for Determinants of Innovations (MIDI) (in Dutch). Available at: <http://www.tno.nl/downloads/MIDIvragenlijst.pdf> (last accessed 24 June 2013).
- American Medical Association (1992). *Diagnostic and treatment guidelines on child physical abuse and neglect*.

27. Saperia, J., Lakhanpaul, M., Kemp, A. & Glaser, D. (2009) When to suspect child maltreatment: summary of NICE guidance. *BMJ (Clinical Research Ed.)*, 339, b2689.
28. Lia-Hoagberg, B., Schaffer, M. & Strohschein, S. (1999) Public health nursing practice guidelines: an evaluation of dissemination and use. *Public Health Nursing*, 16 (6), 397–404.
29. Prevent Child Abuse Utah (2006). Child abuse and neglect protocol manual. Available at: <http://www.preventchildabuseutah.org/cmsdocuments/protocol.pdf> (last accessed 23 July 2013).
30. Piltz, A. & Wachtel, T. (2009) Barriers that inhibit nurses reporting suspected cases of child abuse and neglect. *Australian Journal of Advanced Nursing*, 26 (3), 93–100.
31. Adams, B. L. (2005) Assessment of child abuse risk factors by advanced practice nurses. *Pediatric Nursing*, 31 (6), 498–502.
32. Vulliamy, A. P. & Sullivan, R. (2000) Reporting child abuse: pediatricians' experiences with the child protection system. *Child Abuse and Neglect*, 24 (11), 1461–1470.
33. Kenny, M. C. & McEachern, A. G. (2002) Reporting suspected child abuse: a pilot comparison of middle and high school counselors and principals. *Journal of Child Sexual Abuse*, 11 (2), 59–75.
34. Gunn, V. L., Hickson, G. B. & Cooper, W. O. (2005) Factors affecting pediatricians' reporting of suspected child maltreatment. *Ambulatory Pediatrics*, 5 (2), 96–101.
35. Feng, J. Y. & Levine, M. (2005) Factors associated with nurses' intention to report child abuse: a national survey of Taiwanese nurses. *Child Abuse & Neglect*, 29 (7), 783–795.
36. Central committee on research involving human subjects. Available at: <http://www.ccmo.nl/en/your-research-does-it-fall-under-the-wmo> (last accessed 3 March 2013).
37. Berg, B. L. (ed.) (2007) *Qualitative Research Methods for the Social Sciences*, 5th edn. Boston, MA: Pearson Education Inc.
38. Muhr, T. (2004) Atlas.ti. The Knowledge Workbench V 5.0. User's Guide and Reference. Benin: Scientific Software Development.
39. Jones, R., Flaherty, E. G., Binns, H. J., Price, L. L., Slora, E., Abney, D., Harris, D. L., Christoffel, K. K. & Sege, R. D. (2008) Clinicians' description of factors influencing their reporting of suspected child abuse: report of the child abuse reporting experience study research group. *Pediatrics*, 122 (2), 259–266.
40. Cabana, M. D., Rand, C. S., Powe, N. R., Wu, A. W., Wilson, M. H., Abboud, P. A. C. & Rubin, H. R. (1999) Why don't physicians follow clinical practice guidelines?: A framework for improvement. *Journal of the American Medical Association*, 282 (15), 1458–1465.
41. Rogers, E. M. (2003) *Diffusion of Innovations*. New York: Free Press.
42. Bandura, A. (1997) *Self-Efficacy: The Experience of Control*. New York: Freeman.
43. Saillour-Glenisson, F. & Michel, P. (2003) Individual and collective facilitators of and barriers to the use of clinical practice guidelines by physicians: a literature review. *Facteurs Individuels et Collectifs Associés à L'application des Recommandations de Pratique Clinique par le Corps Médical. Revue de la Littérature*, 51 (11), 65–80.
44. Flaherty, E. G., Sege, R. D., Griffith, J., *et al.* (2008) From suspicion of physical child abuse to reporting: primary care clinician decision-making. *Pediatrics*, 122 (3), 611–619.
45. Goad, J. (2008) Understanding roles and improving reporting and response relationships across professional boundaries. *Pediatrics*, 122 (Suppl. 1), S6–S9.
46. Flaherty, E. G., Sege, R., Binns, H. J., Mattson, C. L. & Christoffel, K. K. (2000) Health care providers' experience reporting child abuse in the primary care setting. *Archives of Pediatrics and Adolescent Medicine*, 154 (5), 489–493.
47. Danielson, S., Tuler, S. P., Santos, S. L., Webler, T. & Chess, C. (2012) Three tools for evaluating participation: focus groups, Q method, and surveys. *Environmental Practice*, 14 (2), 101–109.
48. Chioncel, N. E., Veen, R. G. W. V. D., Wildemeersch, D. & Jarvis, P. (2003) The validity and reliability of focus groups as a research method in adult education. *International Journal of Lifelong Education*, 22 (5), 495–517.
49. Krueger, R. A. & Casey, M. A. (2009) *Focus Groups: A Practical Guide for Applied Research*, 4th edn. Thousand Oaks, CA: Sage Publications, Inc.
50. Acocella, I. (2012) The focus groups in social research: advantages and disadvantages. *Quality and Quantity*, 46 (4), 1125–1136.