Swedish nurses encounter barriers when promoting healthy habits in children

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SUMMARY

To increase the understanding of difficulties in promoting healthy habits to parents, we explore barriers in healthcare provision. The aim of this study is to describe nurses’ perceived barriers when discussing with parents regarding healthy food habits, physical activity and their child’s body weight. A mixed method approach was chosen. Nurses (n = 76) working at 29 different Child Health Care Centers’ in an area in west Sweden were included in the study. Three focus group interviews were conducted and 17 nurses were selected according to maximum variation. Data were categorized and qualitative content analysis was the chosen analysis method. In the second method, data were obtained from a questionnaire distributed to all 76 nurses. The latent content was formulated into a theme: even with encouragement and support, the nurses perceive barriers of both an external and internal nature. The results identified four main barriers: experienced barriers in the workplace—internal and external; the nurse’s own fear and uncertainty; perceived obstacles in nurse–parent interactions and modern society impedes parents’ ability to promote healthy habits. The nurses’ perceived barriers were confirmed by the results from 62 of the nurses who completed the questionnaire. Despite education and professional support, the health professionals perceived both external and internal barriers in promoting healthy habits to parents when implementing a new method of health promotion in primary care. Further qualitative studies are needed to gain deeper understanding of the perceived barriers when promoting healthy habits to parents.

Key words: health promotion programmes; barriers; health-related behaviours

INTRODUCTION

Child obesity is a major public health concern and strategies for promoting healthy lifestyle habits are in great demand. Parents play a vital role in obesity prevention in preschool children, and interventions which include the whole family have been shown to be the most successful (Hart et al., 2003; Jouret et al., 2009). However, several factors may indeed influence the effectiveness of family-based interventions. The family context and living environment are well-known factors that influence participation in interventions (West et al., 2010). For example, low-income families are less likely to meet recommendations and guidelines for healthier habits than high-income families (Wardle et al., 2001). Studies have also identified some practical barriers in the practitioners who perform these interventions intended to relay healthier habits to parents and children. Some of these barriers include lack of knowledge and behaviour management (Gance-Cleveland et al., 2009; Steele et al., 2011). Difficulties in raising weight issues, such as stigma and personal fears, also limit their ability to promote healthier habits (Boyle et al., 2009; Klein et al., 2010; Steele et al., 2011). Thus, different management guidelines, practice recommendations
and education programmes have also been created to support health providers in developing skills that will make them better able to promote healthier habits (Gance-Cleveland et al., 2009; Rudolf et al., 2010; Steele et al., 2011).

In Sweden, Child Health Care Centers (CHCC) are major arenas for health promotion and preventive initiatives for children and their families, and 99.9% of all parents bring their children here for general check-ups (National Board of Health and Welfare Sweden, 1991, 2011). These check-ups are conducted by registered nurses, who are educated in children’s health and trained to promote healthy habits to parents and their children (National Board of Health and Welfare Sweden, 1991, 2011). In 2005, a population-based approach was implemented at the CHCC in a province of western Sweden in an attempt to prevent child obesity. This preventive approach is still ongoing, and includes an expanded health dialogue and method for determining body weight status in children (Cole et al., 2000). The dialogue and BMI screening conducted by registered nurses target parents with children from 18 months to 3 years of age. The nurses used an instruction manual developed by a registered dietician to create a dialogue about healthy habits with the parents, addressing issues about meal order, drinks, eating between meals, candy, snacks, dietary fat, physical activity and inactivity.

Before the intervention was implemented, all nurses received education about child obesity in general, information on interacting with the parents and training in using the new manual and BMI screening. They also received instructions in performing the expanded health dialogue and got continuous support from a registered dietician and other professionals at the CHCC both before and after implementation.

The aim of this study was to describe nurses’ perceived barriers when implementing a new health programme where the goal was to promote healthy foods and physical activity to parents in order to prevent their children’s overweight.

METHODS

Design and methodological approach

The mixed method approach is a comparative strategy to strengthen results from different research methods (Repstad, 1999). In this study, data were collected through focus group interviews and from a questionnaire based on the results from the interview. The research steps are shown in Figure 1.

Participants

In the area, there are 29 CHCCs with a total of 76 registered nurses working full or part time. For the focus group interviews, selections of 24 nurses were invited and 17 nurses chose to attend one of three focus groups. Strategic selections and maximum variation (Wibeck, 2000) were used in the recruitment process. Subjects were chosen to obtain variation in the distribution of participants with respect to age, working within both the CHCC and Health Care Centre (HCC) or within the CHCC only, length of service in the CHCC (serving as an indicator of experience in child health care) and representation from the four different areas within the CHCC’s organization in the area. The number of participants in the focus groups varied from four to seven. The questionnaire portion of the study was sent out to all 76 nurses in the area.

Focus group interviews

Interview

An interview guide was used to facilitate the focus group interviews. The interview guide covered initial questions and key questions about the expanded health dialogue, with the addition of probing questions for further information. The participants were introduced and the questions commenced: What do you find most important with the health dialogue? What are your experiences in performing the health dialogue with an instruction manual? What kind of support do you need to improve the health dialogue? Do you perceive any difference in performing the health dialogue if the parents or their child are overweight or obese? What supportive role do you think that a dietitian should have at the CHCC?

Data collection

The data from the focus groups were collected during January and February 2007 and were performed by an independent moderator and observers (second; H.B. and third authors; M.N., who are not connected to CHCC). The participants
were informed about the aim of the study and full participant confidentiality was ensured via letter. Prior to data collection, a pilot interview was conducted to assess the interview guide, and necessary adjustments were made. The focus group interviews were conducted at the research centre and the lengths of the interviews ranged from 90 to 120 min. The interviews were digitally recorded and subsequently transcribed verbatim.

**Data analysis**

The data analysis was carried out using a qualitative content analysis method according to Granheim and Lundman (Repstad, 1999; Wibeck, 2000; Graneheim and Lundman, 2004). The transcribed text was read several times and meaning units were identified, condensed and encoded. Then the material was summarized in a structured way to find sub-themes that described the manifest meaning and created a theme that described the latent meaning (Table 1). To increase the trustworthiness of the study, the analysis was completed manually by first (L.L.) and third authors (M.N.) independently performing the coding and the analytical process and comparing results. Furthermore, all authors were involved in the discussion of the results and thereafter some alignments were made and the sub-themes were confirmed.

**Questionnaire**

The sub-themes from the analysis of the interviews were used when designing the self-administrated questionnaire. The findings of perceived barriers among the nurses in the focus groups resulted in the assigning of each question in the questionnaire a caption corresponding to these sub-themes in order to investigate the findings in the whole group of nurses. The questionnaire consisted of eight items and the questions were of a more general character than those used in the interview guide. We chose a 4-point scale to avoid a neutral option. Statements were given for each item and nurses marked their extent of agreement: I strongly disagree, I somewhat agree, I agree and I strongly agree.

**Data collection**

The questionnaire was reviewed by the coordinator nurse from the CHCC and minor changes were made. Thereafter it was sent by post to all
76 nurses in the local area of the 29 CHCCs including information about the aim of study. The data from the questionnaire were collected by an independent assistant during September 2007.

**Data analysis**

The questionnaire data were analysed and compared with the results from the focus groups. Numbers and proportion were used to present nurses within each category of agreement regarding perceived barriers in the dialogue with parents at the CHCC.

**Ethical consideration**

The study has been carried out in accordance with research ethical guidelines and approved by The Regional Ethics Committee in Gothenburg, Sweden.

**RESULTS**

**Qualitative findings**

A theme, *Even with encouragement and support, nurses’ perceive barriers of both external and internal nature*, was formulated upon the analysis of the data. All the nurses experienced the health dialogue as very important, however barriers could be identified. During the content analysis, four sub-themes on expressing barriers were revealed: experienced barriers in the workplace—internal and external; the nurses’ own fear and uncertainty; perceived obstacles in nurse–parent interactions and the sense that modern society impedes parents’ ability to promote healthy habits. More detailed descriptions of the different barriers are illustrated by quotations under each sub-theme.

**Experienced barriers in the workplace: internal and external**

The nurses indicated a variety of pressures in their working environments. They reflected on how their roles at the CHCC have changed, shifting focus from medical matters to families’ psychosocial situations. The general work tasks at the CHCC were considered very important. However, they expressed a need to individualize in order to create good, long-term relationships with the children and their parents. The work at CHCC was perceived as being more complex and demanding compared with working with adult patients at the HCC. The nurses also reflected upon their positions in the organization. They had negative experiences regarding the process of referring obese children to the Child Clinic. The nurses felt that the physicians did not take their referrals seriously and were dismissive of their judgements regarding the body weight of the children they were referring.

‘Those who don’t work at Child Health Services don’t understand how much more effort it takes to involve the children . . . therefore you are much more tired after a day . . . at the CHCC (than when working elsewhere), although it is very fun, so . . . I don’t think all colleagues understand that properly’.
We have referred several children with obesity to the child clinic at the hospital and we got the answer that this is not a problem even if they are high above the growth curve. They have insinuated that it’s perhaps a bigger problem for the Child Health Services. It feels like an insult to us because the parents think we have overreacted. So you feel disappointed because it feels like you have frightened the parents and then they trivialised it at the clinic.

Own fear and uncertainty

The nurses expressed uncertainty in the determination of children’s weight status compared with BMI and what advice to give parents when their child is overweight or obese. The reliability of BMI as a measurement of overweight was a concern, as was whether or not they could trust their own judgement in assessing overweight. It became a conflict and an ethical dilemma to feel forced to discuss an issue that had not previously been considered a problem. There was great diversity in the nurses’ feelings of security when talking about food habits, dietary intakes and children’s BMIs. Some felt especially uncertain when discussing appropriate dietary choices and the trustworthiness of official dietary recommendations was questioned.

I actually understand that the parents sometimes react to some of the conversations we have when they visit us at the Child Health Care Centers. You see the family and everything seems to be so nice and good, but when you calculate the child’s BMI, it shows that the child is borderline overweight and then I must talk about it. It’s very hard because it feels like a big conflict.

It’s not easy to know what is true or not one day you should eat less fat and the next day you read that people who drink full-fat milk maintain a healthy weight better. What advice should you give?

Perceived obstacles in nurse—parent interactions

Discussing the children’s other potential problems with the parents was another perceived barrier. Many nurses mentioned frequently experiencing difficulties in their discussions with parents of families with problems with overweight and obesity. Often, these families’ situations were very complicated, making it difficult to talk to them about things like better eating habits and increased physical activity. For example, psychosocial problems such as low income, separation and unemployment combined with overweight or obesity exacerbates the situation.

But you have a few families where the problem with the child’s overweight is just one little problem together with all the other problems in the family. In this case it’s not so easy.

Modern society impedes parents’ ability to promote healthy habits

The nurses discussed the impact of modern society, the mass media’s role and they expressed their feelings that many families have different kind of stresses today. They also reflected over the unique position they have in the CHCC because they meet almost all families, which provides a unique insight into the differences that exist in society. There was a discussion about how they experienced today’s parenthood. They described a feeling that many parents felt insecure in their role as a parent and many also seem to have a need to keep their children involved in activities all the time, which stresses the children.

You should also look at the children’s stress in their daily life, because it’s something that influences them a lot. It too can affect their eating habits. It is related to obesity. Everything is related.

Many people today have a hard time being on their own and feeling confident in that.

The role of television in modern families was also discussed in all focus groups. Television is often on all the time, such as when the nurses make home visits. The mothers often sit and breastfeed their babies in front of the television. Talking about children’s television time often created lively discussions in the CHCC parent groups. Everyone thought it was an important issue to raise with parents even if it was hard to put in a good way.

Too often when making house calls, you find the TV is on.

Quantitative findings

Of the 76 questionnaires distributed, 62 (82%) were returned. The results from the questionnaires (n = 62) are presented in Table 2.

Sixty-six per cent of the nurses expressed agreement about their superiors having little understanding of the work involved at the CHCC. A vast majority of the nurses expressed a
<table>
<thead>
<tr>
<th>Theme</th>
<th>I strongly disagree, n (%)</th>
<th>I somewhat agree, n (%)</th>
<th>I agree, n (%)</th>
<th>I strongly agree, n (%)</th>
<th>Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced barriers in the workplace: internal and external</td>
<td>25 (40.3)</td>
<td>16 (25.9)</td>
<td>13 (21.0)</td>
<td>8 (12.9)</td>
<td>2.1 (1.79; 2.32)</td>
</tr>
<tr>
<td>I feel that my superiors have little understanding of the work involved at the CHCC</td>
<td>40 (64.5)</td>
<td>16 (25.8)</td>
<td>3 (4.8)</td>
<td>3 (4.8)</td>
<td>1.5 (1.30; 1.70)</td>
</tr>
<tr>
<td>I think we are rarely able to support/help families enough</td>
<td>7 (11.3)</td>
<td>35 (56.5)</td>
<td>17 (27.4)</td>
<td>3 (4.8)</td>
<td>2.7 (2.56; 2.92)</td>
</tr>
<tr>
<td>Own fear and uncertainty</td>
<td>16 (25.8)</td>
<td>37 (59.7)</td>
<td>8 (12.9)</td>
<td>1 (1.6)</td>
<td>1.9 (1.73; 2.07)</td>
</tr>
<tr>
<td>I find it difficult to talk with parents about their child's obesity</td>
<td>12 (19.4)</td>
<td>33 (53.2)</td>
<td>17 (27.4)</td>
<td>0 (0)</td>
<td>2.1 (1.91; 2.25)</td>
</tr>
<tr>
<td>Perceived obstacles in nurse–parent interactions</td>
<td>32 (51.6)</td>
<td>26 (42.6)</td>
<td>25 (41.0)</td>
<td>1 (1.6)</td>
<td>2.3 (2.16; 2.48)</td>
</tr>
<tr>
<td>I feel comfortable talking about the child’s weight when the mother or father is overweight or obese</td>
<td>1 (1.6)</td>
<td>26 (42.6)</td>
<td>25 (41.0)</td>
<td>1 (1.6)</td>
<td>2.3 (2.16; 2.48)</td>
</tr>
</tbody>
</table>
strong agreement regarding the difficulty they felt in talking with parents about their child’s obesity and stated further agreement about personal insufficiency in instances when the families had psychosocial problems. There was an agreement about feeling uncomfortable when discussing the child’s overweight or obesity when the parents are themselves overweight or obese. The nurses expressed no difficulties talking about the child’s television time, and the vast majority expressed to some extent that children, in their opinion, had too many activities (for example children’s groups of various kinds) and stimulation today.

DISCUSSION

Discussion of methods
In this study, a combination of both qualitative and quantitative methods was used to strengthen the results. The themes from the analysis of the focus group interviews were used as the basis for the questionnaire, which was sent out in order to reach all nurses at all CHCCs in the area. In qualitative studies it is important to select respondents who are well informed on the relevant subject so as to obtain applicability. All nurses who attended the focus group interviews had experience recognizing excessive body weight among children (Fridlund and Hilding, 2007) and intervening on their behalf. The focus groups were chosen with maximum variation to get a broad spectrum of nurses. Only females participated in the focus group interviews and this reflects the gender distribution at the CHCC. Content analysis was chosen for analysis method as the aim was to describe CHCC nurses’ perceived barriers based on the focus group interviews. Trustworthiness, reasonableness and conscientiousness are other important concepts to maintain when performing qualitative studies (Graneheim and Lundman, 2004; Fridlund and Hilding, 2007). Trustworthiness in the study was accomplished by having all authors involved in the data collection. All authors were engaged in the analytical process, which consisted of negotiating consensus surrounding respondents’ answers, and were implemented to strengthen the trustworthiness of the analysis. Citations related to the sub-theme and data were presented to obtain conscientiousness (Wibeck, 2000).

Some limitations of our study should be noted. Our sample is not representative of the entire nursing profession. The results cannot therefore be applied to hospitals and facilities that were not a part of this study. A broader sampling to include more participants would better reflect the national profile. Additionally, the focus group method is limited in that the participants can influence each other in the group discussion (Krueger and Casey, 2000). Misinterpretation of the written recording of the group discussion is a possibility as well. Therefore, we choose to strengthen the result with a questionnaire to all 76 nurses—the mixed method design. A further limitation may include the formulation of the questions in the questionnaire, as exact matching can be difficult between questionnaire content and focus group discussion results. We elected to use a 4-point scale even though a 5-point scale is more typical, because we wanted to encourage the respondents to express either a positive or negative statement. Having a neutral option can often make that option too easy a choice to make when a respondent is unsure, thus making it more difficult to determine whether it is a true neutral result. It has been shown that when comparing a 4-point and a 5-point Likert scale, the overall difference in the response is negligible (Armstrong, 1987).

The different themes that came forward during the analysis of the focus groups were used to a large extent in the questionnaire. Even so, the questions in the questionnaire were more general, strengthening the nurses’ perceptions of pressure, both external and internal. The only result from the questionnaire that did not correspond equally was the difficulty in talking about television time with the parents. This may be due to the selection of the informants in the focus groups or the possibility that the participants influenced each other in the discussion.

Discussion of results
Despite these limitations, we find that this study has demonstrated that there is significant difficulty when it comes to promoting healthy habits to parents. Nurses perceived barriers even despite their assessment that the instruction manual and support by a dietitian helped them to improve their dialogue with parents on healthier habits. They discerned the task of creating good relationships with the families vital, but they acknowledge that to do so is time demanding. This was not always understood by the heads of the Primary Health Care Organisation.
The nurses have to tailor their help to meet each family’s needs while simultaneously being a representative of the CHCC and the society. The difficulties in combining these two tasks are confirmed by another Swedish study (Olander, 2003). Still, more than 60% of all nurses in the area felt that they were able to support the families.

The vast majority of nurses in the study expressed having fear and uncertainty in different areas, particularly regarding communicating with parents about their child’s overweight or obesity. This finding is supported by Steele et al. (Steele et al., 2011).

The nurses in our study felt as if the good relationship they would build up with the parents changed when they began talking about the family’s unhealthy lifestyle and their child’s body weight problems. They additionally discussed the difficulties in keeping updated on research within nutrition. Story et al. (Story et al., 2002) found that paediatricians, child nurses and dieticians who work with obesity treatment of children and young people also had difficulties in communicating with parents, determining that the professionals were uncertain in their own knowledge in general and diets and nutrition in particular.

The nurses also talked about modern society’s effect of counteracting healthy habits, such as when the child spends time watching television or a number of other leisure activities. The stress within families regarding ensuring their activity schedules meshed was discussed in all focus groups and was also confirmed by the questionnaire results. Ginsburg (Ginsburg, 2007) found that the time for free play has been markedly reduced while controlled activities have increased, and this stresses the families. Too much television with its impact of advertising, and computer games were some other examples of stressors in the families. These issues have also been identified and studied as problems in other western countries (Veerman et al., 2009; Whaley et al., 2010).

When planning and implementing an intervention programme to promote healthy habits to parents, knowledge about potential barriers is important. Hence, when the programme was implemented, the stigmatization to talk about the child’s overweight was underestimated and barriers perceived by the nurses were discovered. Because the barriers may include both internal and external causes, we suggest that this task needs multidimensional and multispectral actions so that we can be more mindful of organization-associated and individual-associated barriers. Examples of such actions include increased resources and capacity in the CHCC, increased education and training for the nurses who are tasked with implementing the intervention, as well as increased support from professionals specializing in nutrition and physical activity.

CONCLUSIONS

Despite an instruction manual developed by, and support from a registered dietician and other professionals, the nurses at the CHCC experienced numerous different barriers when promoting healthy habits to parents. The problems are complex and usually require many different actions. For example, training in different types of interviewing methods and consistent application of guidelines are important contributions, but there should also be more support in the organization and uniform guidelines for the different professionals in CHCC. Realizing that nurses and probably other professionals perceive barriers when promoting health in general is important and needs to be taken into account when planning and implementing interventions.

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