CHAPTER 8

EXPLORING NON-HEALTH OUTCOMES OF HEALTH PROMOTION INTERVENTIONS: THE PARTICIPANT’S PERSPECTIVE

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ABSTRACT

Objective
To provide insights into health promotion outcomes that are not captured by conventional measures such as EQ5D-based QALYs.

Methods
Twelve semi-structured interviews and five focus group discussions were conducted with participants (N=52) of a randomised controlled trial evaluating the effectiveness of a theory-based lifestyle intervention in Dutch adults at risk for diabetes mellitus and/or cardiovascular disease. Transcripts were analysed by two independent researchers using a thematic analysis approach.

Results
In total we identified 12 non-health outcome themes that were important to respondents. Four of these were reported as experienced outcomes of the counselling intervention and eight were reported as consequences of lifestyle behaviour change. The themes provide support for the intended health promotion outcome of empowerment. In addition, the findings suggest that lifestyle behaviour change may produce spill-over effects on respondents’ broader social and family environment.

Conclusion
This study provides evidence that EQ5D based QALYs only partly capture health promotion outcomes. More insights are needed into non-health outcomes and spill-over effects produced by health promotion interventions in other contexts and how participants and society value these. Methods to account for these outcomes in economic evaluation studies need to be developed and tested.
INTRODUCTION

Health promotion (HP) interventions are increasingly regarded as a way to tackle the growing global burden of chronic diseases. The need to strengthen HP activities is also recognised at the policy level, demonstrated by the various HP policies implemented by governments and international organizations. Economic evaluation studies can be a helpful tool for deciding the type of HP interventions to include in such policies, as they provide a comparison of the costs and consequences of alternative intervention options. However, health outcomes are rather narrowly defined and often only measured using Quality Adjusted Life Years (QALYs). Therefore, the evidence economic evaluation studies provide regarding HP interventions is incomplete and may lead to suboptimal allocation decisions.

To improve the information base for decision makers, broader non-health outcomes of HP should be considered as well in economic evaluation studies. To date this is not possible, because we lack knowledge of non-health outcomes actually experienced by participants of HP interventions and society, and theoretically underpinned outcome measures for use in evaluation are not readily available. The present research aimed to identify non-health outcomes produced by HP in the context of a lifestyle behaviour change (LBC) intervention. The study focused on non-health outcomes, concerning actual consequences of HP.

METHODS

A combination of semi-structured interviews (SIs) and focus group discussions (FGDs) was used to explore non-health outcomes from the perspective of participants in a HP intervention.

Study population and recruitment procedure

Respondents for SIs and FGDs were recruited from participants in the Hoorn Prevention Study (HPS), a randomised controlled trial evaluating the effectiveness of a theory-based lifestyle intervention in adults at risk for developing type 2 diabetes and/or cardiovascular disease. The intervention was directed at improving motivation and self-empowerment of individuals to make sustainable changes in their lifestyle behaviour. It was provided by trained practice nurses using evidence-
based counselling techniques (i.e. *motivational interviewing* and *problem solving treatment*) in up to 6 individual counselling sessions followed by 3-monthly sessions by phone. Participants could choose to focus on smoking cessation, physical activity, diet or a combination of these lifestyle behaviours. The control group received written information about their risk to develop type 2 diabetes and cardiovascular disease, and existing brochures containing information about how to stop smoking and about health guidelines regarding physical activity and diet. For this qualitative study we recruited participants of the intervention group only, because familiarity with the HP intervention was regarded as crucial in order to talk about consequences of the intervention based on personal experiences. Respondents for SIs were recruited between January and February 2009. Participants, who had research visits for physical measurements of the HPS scheduled during this period (n=20), were contacted by phone. They were asked whether they were willing to be interviewed after the research visit. This resulted in a sample of 13 interview participants (see Figure 1). Two of these were a couple and therefore interviewed together. Respondents for FGDs were recruited in March 2009. To maximise diversity in perspectives and experiences we invited all intervention group participants still participating in the HPS (n= 282). A written letter of invitation was mailed with the request to return the included response form indicating whether they wished to participate. Participants, who did not return the response form within two weeks, were contacted by phone. This resulted in a sample of 40 participants (see Figure 1). Five FGDs were held in March and April, each conducted with 6 to 12 participants. Background characteristics of participants in SIs and FGDs were measured at baseline of the HPS (between December 2007 and April 2008) and are presented in Table 1.

The interview process
Both SIs and FGDs were commenced with a general introduction about the purpose, procedure and confidentiality of the interviews. SIs proceeded with a broad opening question (“You are participating in the Hoorn Prevention Study. Can you tell me how you experience this?”). Respondents were then asked what expectations they had towards the counselling sessions and how they actually experienced them. Subsequently respondents were asked to describe the outcomes they experienced due to the counselling. We also asked whether the counselling had led to changes in respondents’ lifestyle behaviours and if so, which consequences
these changes had for them. In case respondents did not change lifestyle behaviour during the intervention, we asked them whether they could describe experiences with lifestyle behaviour change in other situations. Probing questions were used to encourage participants to elaborate on their views and experiences (e.g. “Can you explain what you mean by feeling good?”). The interviewer used a topic guide to ensure that all relevant issues were covered (see Appendix 1). For FGDs the same topic guide was used as for SIs. However, the interviewer introduced the topics for discussion in a somewhat different way using techniques to encourage interaction and equal participation of respondents. A whiteboard was used to gather different ideas put forward by respondents and post-its were used on which respondents could first list items individually and then share them with the group. To start up discussion after the opening question, we presented several statements about expectations towards the HPS to respondents and asked them to indicate agreement and disagreement with the statements using voting cards. The statements were derived from preliminary results of the SIs (see Appendix 2).

All interviews were conducted by the same interviewer (AG), a health economics researcher with a background in public health. SIs lasted between 30 and 60 minutes and FGDs between 1.5 and 2 hours. Participants’ travel and parking costs were reimbursed. Additionally, SI participants received a breakfast and FGD participants received refreshments and a USB stick. Ethical approval for the study was obtained from the VU University Medical Centre Research Ethics Committee.

Data processing and analysis
All SIs and FGDs were audio-taped, transcribed and entered into QSR Nvivo 8.0. Each transcript was analysed by two researchers (AG and JL or AA or HS) using thematic analysis. First, the researchers identified text fragments referring to three main themes: 1) expected outcomes of the counselling, 2) experienced outcomes of the counselling and 3) experienced consequences of LBC. Within these main themes we distinguished non-health and health outcome themes. Health outcome themes were defined as pertaining to outcomes incorporated in the QALY, namely: changes in a) life expectancy and b) health related quality of life (HRQOL). HRQOL was further defined using the EQ5D instrument, a frequently used HRQOL measure with 5 dimensions (i.e. mobility, self-care, usual activities, pain/discomfort and anxiety/depression). All outcomes of the counselling and LBC not pertaining to life expectancy or the 5 EQ5D dimensions were coded as
non-health outcomes. Health outcome themes were excluded from further analyses and non-health outcome themes were further classified into more specific subthemes. Regular meetings were held to compare the identified themes and reach consensus about coding. Based on the final coding a tree structure was developed in Nvivo, consisting of nodes representing the three main themes and the identified subthemes. All coded text fragments in the transcripts were linked to these nodes allowing to simultaneously analyse all interview data. These final analyses were conducted by the first author and consisted of two steps 1) the identification of key themes across all interviews and 2) selecting citations to support key themes. The key themes and citations were then presented to the project team again to check whether they gave a good representation of the data.

RESULTS
In total 12 non-health outcome themes were identified. These are presented below for both SIs and FGDs together and were subdivided into outcomes experienced as consequence of the counselling (n=4) and outcomes experienced as consequence of LBC (n=8). This distinction was made, because these outcomes were not necessarily experienced simultaneously. Respondents may have participated in the counselling intervention and experienced consequences of the counselling without acting upon it by performing lifestyle changes. Respondents may also have performed behaviour changes independent of or before participating in the intervention (see Figure 2). The impact of the counselling sessions on participants’ LBC is described in more detail in Box 1.

Non-health outcomes of the counselling
Awareness
One of the most frequently discussed benefits of counselling was increased awareness of health risks respondents are facing and awareness that these can be reduced by means of lifestyle behaviour change.

“Otherwise it just goes by, because it doesn’t bother you, you are feeling well (…) you have to wait until you have health complaints and then you are actually too late, so I think this is for me very positive in particular that you are now very aware of what you can do.” (Man, FGD 2)
The conversations with the counsellor also raised respondent’s awareness of their own unhealthy behaviour patterns and the pitfalls they encounter while trying to change their lifestyle.

“Well, I become more aware of it (…) what I struggle with, every time. Because I want to change my lifestyle, but I don’t manage to” (Woman, FGD 1)

Awareness of their own behaviour patterns helped respondents also to see new possibilities for LBC.

“Well, what it brings is that you are more actively aware of physical activity, with the patterns that you have (…). When I look at myself then that is the gain. Like you can simply take the stairs instead of the lift” (Man, FGD 3)

**Motivation for LBC**

Many respondents felt that the counselling sessions increased their motivation for LBC. Some already had the intention to perform lifestyle changes before participating in the counselling, but did not find the motivation to actually do so.

“I did nothing [sport] anymore, and then [when participating in the HPS], I started again. I just needed this kick, you know” (Man, FGD 4).

The counselling sessions provided the opportunity to discuss progress with LBC on a regular basis. This motivated respondents to continue with lifestyle changes. Some respondents were however only externally motivated, because they felt the need to justify failure to progress with lifestyle changes otherwise.

“When I know that I have to go to such a person to have a conversation, I don’t do it (…) I can’t do it, because next week the scales have to go down. If I put a cookie into my mouth, it’s not going to work.” (Woman, FGD 4)

Hence, when the counselling finished not all participants were able to maintain motivation for LBC.
“When this moment of control is not there anymore, yes then it [motivation] is likely to abate. I really need a little bit of control.” (Woman, FGD 3)

A possible way to improve the potential of the counselling to increase the participant’s motivation for LBC was also discussed. Several respondents had the expectation that the results of the physical measurements conducted during the HPS (i.e. anthropometric measurements, blood pressure and blood tests) would be addressed during the counselling sessions. They were disappointed that this was not the case and some pointed out that they perceive this as a lost opportunity for monitoring the impact of their lifestyle changes. Incorporating regular monitoring of the impact of LBC on physical indicators of health risks was suggested as a way to improve the counselling and to increase motivation for LBC.

“When I go exercising what does this actually mean for what changes for me? What about the blood values, what about the cholesterol? Because I think that this could be the gain, the extra gain. (…) it could certainly improve, could be very motivating, because you see that your cholesterol goes down or you see that your cholesterol goes up. Then you can say what happens to you.” (Man, FGD 3)

Goals for LBC
The counselling sessions also helped respondents to set more concrete and realistic goals for LBC. Together with the counsellor they broke the intended lifestyle changes down into smaller steps that can be implemented more easily. Respondents described for instance that as a first step to LBC they started to rearrange their daily life schedules to create rest and time for themselves.

“You simply make a choice now, like, I do this and that. Before that, I wanted everything, I wanted everything and I did nothing (…). Now it is simply structure, bringing structure into your whole life.” (Woman, FGD 4)

Confirmation and acknowledgement
The SIs and FGDs revealed that participants appreciated the positive feedback they received during the counselling sessions with respect to the lifestyle changes they made. It gave them confirmation and acknowledgement of their achievements. As answer to the question how the counselling has helped her, one respondent said:
“Well, in the sense that you feel supported, not only that, but also that you have actually achieved something, that it is acknowledged again. That it is good.” (Woman, SI 11)

**Non-health outcomes of LBC**

*Body satisfaction*

Many respondents experienced a change in their body shape as a consequence of LBC. Most of them reported that increased physical activity levels and/or changes in dietary behaviour led to a slimmer body. This resulted in greater body satisfaction, which respondents described as finding themselves more attractive and being less ashamed about their body. Several respondents also mentioned to be happy that they are able to wear a smaller clothing size, which some associated with the possibility to find prettier clothes.

“I am so happy with this [weight loss], that I think for myself I do not want to go back to that [82.5 kg]. So, I want to keep these 74 [kilos]. (…) I find my body acceptable with 74 kilo’s. And of course it can always be better, it can always be more beautiful, but I can do what I want and I feel happy with this.” (Woman, SI 7).

Some respondents reported that they gained body weight due to LBC and became less satisfied with their body. This happened for example to people who stopped smoking and then started eating more unhealthy snacks. A woman who started going to a fitness centre described that she stopped doing so, because she was unhappy with extra weight she had gained.

“I go to ‘looking dapper in your clothes’ [name of a training programme]. That’s what I want, too. (…) Then you go there [fitness centre] and you get a whole programme of what you have to do. I say to this man, this is not going well; the scales are only going up. (…) He says you don’t lose weight, but you get muscles (…). I left and never went back.” (Woman, FGD 4)

The aspect of body satisfaction was not equally important for respondents. Some found outer appearance very important, whereas others considered it less important and attached more importance to the reduction of health risks.
“I sometimes look into the mirror and see love handles developing and so forth, so you think: but I actually absolutely don’t want this. But then you rather push this aside too easily. For me it was only that I said ok, I apparently have a health risk that I thought oh dear.” (Man, FGD 4)

**Stress reduction and relaxation**

According the experience of several respondents increased physical activity levels contributed to stress reduction and relaxation. They described this as being able to clear their mind and feeling calmer. Some respondents also explained that through relaxation they gained new mental strength to deal with life challenges.

“When you have stress, things, I also notice it when I had a busy day at work. Then I enjoy these 25 minutes on the bike. Because I know when I come home it starts with ‘mum, mum, mum’ and then the other ‘mum, mum, ‘mum’ (…). Well, then it is pleasant that your mind is clear” (Woman, SI 7)

Relaxation was also identified as a theme in relation to smoking cessation. One female respondent reported that smoking has always been a way for her to relax and that she experiences less moments of relaxation since she quit smoking.

“Then [when you don’t smoke] you simply continue. And this is a moment; a fag really is a little moment for yourself.” (Woman, SI 10)

**Endurance**

Improved endurance was commonly reported as a positive consequence of increased physical activity. Respondents explained that regular physical activity made them feel stronger, fitter and more energetic. Some respondents described the improvement in endurance also as the experience that physical activity became gradually easier and less tiresome.

“I feel simply less tired, now. Yes, because of the fitness [training]. So, if you have a big job in the garden or so, then you are broken after a day of hard work in the garden. But now I don’t have this anymore.” (Man, SI 8)
**Social interaction**

Several respondents described that they enjoyed being physically active, because it provided them with an opportunity for social interaction. In this context respondents also mentioned the value of feeling part of a team, which they experienced when engaging in team sport, such as volleyball.

“When you go exercising, you also go there partly for fun. I mean you get some enjoyment out of it. (...) So that you say I get a pleasant evening and social contact and that is an enrichment of your life.” (Man, FGD 1)

The benefit of social interaction was also mentioned with respect to smoking cessation. Despite the overall benefit derived from cessation, two respondents noted that they had fewer or less pleasant interactions with other people since they stopped smoking.

“When you stop smoking you miss all internal communication. All that happens in the hospital, all departments, such as his relationship ended and he got married. Smokers come really everywhere, I really miss the gossip.” (Woman, FGD 3)

**Feeling of control**

The FGDs and SIs revealed that due to experiences with LBC respondents learned that weight loss or increased endurance are a result of their own efforts to change behaviour. This gave them a feeling of control over their lifestyle choices.

“This [losing weight] is pleasant, yes. That’s why I also think that I can simply manage to get rid of it [weight gained again]. You see?” (Woman, SI 4)

**Overcoming addiction**

Respondents who stopped smoking reported that they were happy to have overcome tobacco addiction. They described this as not having a constant urge for a cigarette anymore, which enabled them to focus better on work or other activities.
“Now, after 8.5 years [of cessation] I can only say yes I simply don’t have this urge anymore and everything (…) and I simply hope that I never do it [smoking] again.” (Woman, FGD 2)

**Feeling fresh and clean**

Another benefit of smoking cessation experienced by respondents was that they felt fresher and cleaner. A woman who stopped smoking just recently mentioned that she liked the idea that her lungs will get completely clean again. But generally this theme concerned getting rid of tobacco odour in respondents’ clothes, hair, skin and house.

“No, I find it good for now [that I stopped smoking]. It [the odour] stays in your hair and in your skin. I just didn’t want it anymore.” (Woman, SI 10)

**Effort**

As negative consequence of LBC many respondents mentioned was the effort associated with it. For example respondents found it hard to get up early in the morning and go out into the cold in order to exercise. With respect to changing dietary patterns, some respondents described that they had to resist the temptation of buying fast food or ready-made meals. Others reported that they had to make an effort to prepare separate meals for family members, who were not willing to adapt to the new diet. Denying yourself sweet or fat snacks was also a commonly reported topic.

“I hope that I lose another thirteen kilos, but I find it difficult. Yes, because you really have to abstain from things.” (Woman, FGD 1)

Respondents who quit smoking also described that they had to make an effort, first to overcome withdrawal symptoms and subsequently to handle the risk of relapse.

“It’s so easy for me to start [smoking] again (…). I never think: yuck the first cigarette. Yes, I just instantly like the taste again. So, it will always remain a weakness for me.” (Woman, SI 10)
The non-health outcome themes respondents reported in relation to LBC performed while participating in the intervention were largely concordant with outcome themes reported in relation to LBC respondents had performed in other situations. The only two outcomes not reported as a result of the intervention were ‘feeling fresh and clean’ and ‘overcoming addiction’.

**Differentiating between non-health and health outcomes**

The research team agreed that the above described non-health outcome themes concern distinct aspects of wellbeing that are not covered by EQ5D-based QALYs. The dividing line between the non-health and health outcome themes identified was however not always clear cut. To provide transparency about the health outcome themes excluded from further analysis, some examples are presented in Box 2.

**Spill-over effects**

As the lifestyle intervention evaluated in the HPS was directed at individuals, this research focused on identifying non-health outcomes experienced by individual participants of the intervention. The FGDs and SIs suggested, however, that lifestyle changes of individual participants may also have had spill-over effects on their broader social and/or family environment. Respondents described for example that becoming more physically active encouraged behaviour change in their partners and colleagues.

“My partner went to this gym together with me and also at work my colleagues see that I am pretty active and that stimulates them, too. (...) I see everybody walking more and using the stairs more.” (Man, FGD 3)

The impact of changing grocery habits and cooking patterns on dietary patterns of other household members was also frequently discussed.

“(…) and we do the groceries. Then I simply don’t buy it [unhealthy snacks]. Things that are not in the house are not going to be eaten.” (Woman, FGD 2)
DISCUSSION

This research explored non-health outcomes produced by HP that are not captured by EQ5D-based QALYs. By means of SIs and FGDs we identified in total 12 themes that were important from the perspective of participants in a HP intervention directed at changing smoking, physical activity and dietary behaviours. Four of these concerned non-health outcomes experienced as a direct result of the counselling intervention. The other 8 themes were reported as outcomes experienced from LBC.

The identified themes add to the limited evidence available about non-health outcomes of HP. We only found two other studies examining the importance of non-health outcomes to participants of HP interventions or other stakeholders. Both studies used the contingent valuation method to examine willingness to pay (WTP) for non-health outcomes. The first examined WTP for non-health outcomes of community based HP intervention directed at maternal and new-born health in Nepal\(^\text{19}\) and the second study examined WTP for a smoking cessation intervention that eliminates addiction in a US sample of current smokers.\(^\text{20}\) The studies found that respondents were willing to pay for the opportunity of social interaction and overcoming addiction, respectively. These non-health outcomes are in line with themes identified in the present study. A discrete choice experiment study conducted in the context of social care, also provides support for the relevance of the theme social interaction\(^\text{21}\) and suggests that older people attach importance to control over daily life, which is similar to the theme control over lifestyle choices, identified in our research.

The results of the present research indicate that HP interventions may also produce spill-over effects to others in participants’ social environment. This finding confirms previous research showing that HP and other health care interventions have spill-over effects to family members.\(^\text{22-24}\)

The combination of SIs and FGDs has proven to be a useful method to generate both in depth and in breadth insights into non-health outcomes of HP. While, all themes were mentioned during both SIs and FGDs, SIs were more likely than FGDs to provide information about sensitive topics, such as body satisfaction. FGDs generated more information about similar and contrasting views and experiences of respondents, which SIs did not generate. This finding confirms earlier research showing that this type of triangulation of qualitative methods enhanced understanding of the phenomenon studied.\(^\text{25,26}\)
Several limitations of this study are worth mentioning. Firstly, non-health outcome themes were explored from the perspective of participants in a single HP intervention only. As reported non-health outcome themes already differed between participants of the same intervention and according to the types of lifestyle behaviour changes made, it is expected that other HP interventions produce different non-health outcomes. Therefore, more research is needed exploring non-health outcomes produced by other HP interventions and in other settings and populations. Secondly, the distinction between health and non-health outcomes made in this study is not decisive. Non-health outcomes were defined as all outcomes not captured by EQ5D-based QALYs. The EQ5D is one of the most frequently used HRQOL measures and represents current economic evaluation practice. However, health outcomes could also be defined in a broader fashion, which may lead to a re-labelling of some of the identified non-health outcome themes as health outcome themes. We currently lack clear definitions distinguishing between health and non-health outcomes. Such definitions need to be developed to guide future research aiming to identify broader HP outcomes and to encourage public debate about the types of outcomes to be incorporated in economic evaluation. Thirdly, this study focused on non-health outcomes experienced by individual participants of a HP intervention only. Due to creating environmental conditions that support healthy lifestyles, HP interventions may also produce non-health outcomes on a community level and in other sectors of society, such as housing, education, employment, transport and social care. More research is needed to identify these kinds of non-health outcomes.

CONCLUSION
This study identified themes of non-health outcome important to participants of a LBC intervention that are not captured by EQ5D-based QALYs. The results also suggest that HP may have spill-over effects to other people in the participant’s direct environment. More insights are needed into non-health outcomes and spill-over effects that are produced by HP interventions in other contexts and how participants and society value these. In addition, future research should develop and test new methods to account for non-health outcomes and spill-over effects allowing economic evaluation studies to better reflect the full range of HP intervention outcomes.
Figure 1: Recruitment procedures
Participants in the SIs and FGDs had mixed experiences with and views about the counselling intervention. Several respondents clearly indicated that the counselling encouraged them to change their lifestyle behaviours. The changes they reported concerned, for example, smoking cessation, using the bike more frequently instead of the car, eating more regularly and having breakfast, drinking less alcohol, using healthier fats for cooking, and using low fat sandwich fillings.

“Well, I stopped smoking because of this [the counselling]. Well, I managed this and now it is also a matter (?) of physical activity. It goes alright, but it could be increased. I just need to do this better.” (Woman, FGD 3)

Such changes in lifestyle behaviours induced by the counselling were reported by 3 of the 13 respondents in the SIs and were discussed by respondents in all 5 FGDs. Other respondents found the counselling useful, but they did not change their lifestyle behaviours.

“I don’t change my life because of it [the counselling]. Well, but it reminds you that you should watch out a little bit, that you have to live healthy.” (Woman, SI 3)

And a third group of respondents did not appreciate counselling sessions at all.

“Well, I have my experience. I had a conversation and it was nothing new actually. And then I stopped immediately in fact. It was a conversation and it was not worthwhile in my situation.” (Man, FGD 3)
Table 1: Characteristics of study participants (N=52)

<table>
<thead>
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<th>VARIABLES</th>
<th>N (%)</th>
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<td><strong>TYPE OF INTERVIEW</strong></td>
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<td>FGD</td>
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<tr>
<td>SI</td>
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<td>VARIABLES</td>
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<td>Mean (SD)</td>
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FGD: focus group discussion  
SI: semi-structured interview  
Notes: Percentages do not always add up to 100, because there were missing values for several items: education level (n=2), income (n=7), having paid work (n=2), working full- or part-time (n=10), country of birth (n=2), living arrangements (n=2), smoking status (n=2), all EQ5-D dimensions (n=2).

Figure 2: Non-health outcome themes identified

*Consequence of changing physical activity (P), diet (D) or smoking cessation (S)
REFERENCES


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APPENDIX 1

Topic guide SIs and FGDs

Opening question:
You are participating in the Hoorn Prevention Study. Can you tell me how you experience this?

Expectations towards the counselling:
What were your expectations towards the counselling before you started?
What did you expect to be positive/negative?

Experiences with the counselling:
Were the counselling sessions like you had expected?
What did you like/dislike about the counselling sessions?

Consequences of the counselling:
Did anything change in your life due to your participation in the counselling sessions? Can you describe these changes?

Did you change anything in your lifestyle behaviour(s) while you participated in the counselling?
Do you have experience with lifestyle change in another situation?

Consequences of lifestyle change:
Can you describe what you have changed in your lifestyle behaviour(s)?
How was it to change your lifestyle? What was positive/negative about it?

Closing question:
Are there any other matters we did not talk about so far, which you would like to discuss?
APPENDIX 2

Leaflet with expectations about the HPS and the lifestyle intervention

Regarding my participation in the Hoorn Prevention Study and the lifestyle counselling I had the expectation that...

“I would get information and hopefully also advice as to how I can improve my lifestyle, what I have to pay attention to. My pattern of expectation was that I would get more coaching there, like you can do this, you can do that”

“I would also get to learn more over myself by participation in a joint research”

“Through this I would particularly get the motivation again to begin with physical activity and such things. I noticed that I have difficulties to find the motivation by myself to do something about it “

“Once I participate in this, I feel that it is also just again some support. Yes, like you think that we start working on this [losing weight] again and that we do something with it”

“I would get information about how it is going and maybe not going with you. I don’t have it [diabetes] in my family, but in my wife’s family. So it is also simply close to where you are”