

“We are healthy so we can behave unhealthily”

A qualitative study on health behaviour of Dutch lower vocational students

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Abstract

Purpose: The study investigates perceptions of second grade lower vocational students concerning benefits, barriers and strategies of healthy eating and physical activity.

Design/Methodology/Approach: Focus group discussions were conducted with 37 adolescents, from three schools in the Netherlands. A semi-structured questioning-scheme was used. Recorded data was transcribed, analysed using Atlas.ti and arranged in the EnRG-framework.

Findings: Adolescents find health and a healthy weight important and like having a choice when it comes to health behaviour. The choices they make, however, are often unhealthy, especially when related to food. The risk perception of these adolescents is low; as long as they feel healthy, they feel no need to change their behaviour. Parents are held responsible for providing opportunities for healthy behaviour. At the same time, parental influence lessens and adolescents start to develop unhealthy habits, usually under the influence of a peer group. Adolescents accept the interference of school, meaning there are good opportunities for school-based interventions.

Research limitations/implications: The amount 37 respondents may not be representative for the different personalities of peer-students.

Practical implications: Adolescents need to take on greater responsibility for their own health behaviour, especially in the school setting where they are more autonomous than at home. More information is needed about the perceptions of parents and school staff regarding stimulating healthy dietary and physical behaviour to develop, implement and preserve integral school health interventions successfully.

Originality/Value: Information on adolescents' perceptions on their responsibility for their health behaviour is needed to develop school-based health intervention consistent with their needs.

Keywords: Focus groups, school health promotion, adolescents, adolescent overweight, exercise, dietary behaviour

Paper type: Research paper

Introduction

The prevalence of adolescent overweight and obesity is increasing in the Netherlands (van den Hurk et al. 2007). During the period of adolescence, the adolescent gradually gains more independence and autonomy as parental control lessens. As a consequence, the influence of peer norms becomes more important. In this period the adolescent also gains more financial independence (Bauer et al. 2004; Brug and van Lenthe 2005; Brug et al. 2008). These changes have an impact on health behaviour patterns: participation in sports clubs decreases (Riddoch et al. 2004; van Mechelen et al. 2000) and eating habits become unhealthier, due to eating more snacks and soft drinks, skipping breakfast, and eating less fruit and vegetables (Lytle et al. 2000).

Behaviour which develops during adolescence is likely to influence long-term patterns of health behaviour (Bauer et al. 2004). For this reason, specific interventions for adolescents are needed. Although parents are considered to be primarily responsible for their children's health and body weight, the school setting is also important when it comes to stimulating healthy behaviour (St Leger 2001). However, implementing health promoting activities in schools has proven to be difficult and the long term effects of interventions are still disappointing and equivocal. Interventions could be more effective if they are tailor-made, lead to changes in the physical and social environment, appeal to all students and become a lasting part of school policy (Brown and Summerbell 2009; Doak et al. 2006; Summerbell et al. 2005).

Previous research shows that an integral approach at school with the participation of the most important stakeholders, students, parents, teachers and school staff, is promising (Leurs et al. 2008). However, it is unclear how these school-based interventions meet the perceptions, needs and ideas of the targeted adolescents. Therefore it is important to develop tailored interventions that are easy to implement in daily life and agree with adolescent experiences and ideas to increase their compliance and participation in the interventions. This study investigates perceptions of 12 to 14 year old second grade lower vocational students concerning benefits, barriers and strategies of healthy eating and physical activity, thereby gaining insight in their motivation and strategies for healthier behaviour and preventing overweight.

Methods

Respondents and recruitment

A descriptive qualitative study on perceptions of health, body weight, dietary behaviour and physical activity was conducted among 37 second grade lower vocational students (20 girls, 17 boys) ranging from twelve to fourteen years in age (mean = 13,7) in the region of Zwolle, a rural area in the northeast of the Netherlands with 420.000 inhabitants (of which 110.000 in the city of Zwolle). The prevalence of overweight in this region can be compared to other Dutch regions (GGD-IJsselland 2009). The Zwolle region can be characterized as an average Dutch region, representative for the rural part of the Netherlands. Moreover, the local government has an active health policy and tries to set an example for other regions.

Seven lower vocational schools in the Zwolle region were approached and were asked to participate in the study. Efforts were made to include schools in urban areas as well as in the more rural areas. Three schools agreed to participate, consisting of one school located in an urban area and two schools located in more rural areas. Reasons for refusing participation included being involved in a different study, having other priorities such as a new school location, and not being able to recruit enough respondents. The school was responsible for recruiting two groups of six to eight second grade students from different classes, both boys and girls, for an interview. Five groups were formed, consisting of two all-male groups, two all-female groups and a mixed group. Each school communicated the explanation of the study and recruitment of respondents to parents and students in a manner common for school policy, for example, as a publication in the school newsletter, an information letter, and by visiting classrooms. The most effective way to recruit respondents was asking them personally to participate in the interviews. Respondents were told the focus groups interviews entailed their ideas concerning a healthy lifestyle. They were assured that they would not be graded and no body measures would be taken. Written consent was given by parents and participation was voluntary. Interviews were held during school hours. Boys and girls were interviewed in separate groups, as it was expected that in this way they would speak more freely (Wilson et al. 2005). At one school a mixed group was formed because of low numbers.

Focus group interviews

Focus group interviews were conducted to gain a better understanding of determinants that influence opinions about health and health behaviour (Kitzinger 1997). This method has proven its value (Allison et al. 1999; Bauer et al. 2004; Hohepa et al. 2006; Neumark-Sztainer et al. 1999). A semi-structured questioning scheme was developed for the interviews. The theory of planned behaviour (Ajzen 1991) was used to formulate ten key questions regarding attitudes, benefits and barriers of health, body weight, healthy eating and physical activity (table 1). Based on the literature, additional subjects for discussion were listed (Bauer et al. 2004; Hohepa et al. 2006; Kubik et al. 2005; O'Dea J 2003; Wilson et al. 2005). This list was used to elaborate on the discussion started by the key questions. To introduce a subject for discussion, respondents were given an assignment to write down their ideas or to point out a healthy weight with the help of silhouettes (Kubik et al. 2005). The group interviews lasted from one to one and a half hours.

Analysis

Audio taped data were transcribed verbatim and analysed using the Atlas's software package (www.atlasti.com). To analyze the interviews quotations were coded according to the categories suggested in the EnRG-framework to. In the EnRG-framework environmental factors, motives for reasoned action and personal characteristics that moderate behaviour are combined to understand energy balanced related behaviour (Kremers et al. 2006). Results of the analysis were checked by a second researcher for consistency. Notes taken during the interviews were used to understand the context in which comments were made.

Results

A report of the key questions is made. Comments are categorized using the EnRG-framework. The most important issues are summarized in table 2.

Health and health behaviour (table 2)

Respondents found it difficult to explain the concept of health. At this stage in life, health was taken for granted and no specific action was taken to be healthy. *“For me, having friends is more important than being healthy. You think about it more.”* Respondents' citations mostly expressed their attitudes towards health. Respondents held parents responsible for their health and health behaviour, while they suggested that the school could play a more stimulating role.

Body weight (table 2)

Respondents chose a fairly firm silhouette to point out a healthy body weight. They based their judgement of a healthy body weight on people they were familiar with and on what seemed appropriate to them. Although respondents mentioned the disadvantages of being overweight, having a healthy body weight was not apparently of much concern. Girls seemed to be more concerned about their weight than boys. *“Being overweight is not healthy. You just become so ugly. You are bullied.”* Most respondents felt able to control their weight when necessary. No specific actions were taken to prevent from gaining weight. *“Just pay some attention to it for a while.”*

Healthy eating (table 2)

Although respondents associated healthy eating with being healthy, feeling fit and performing well at school, it did not result in making healthy food choices. *“I do not care what I eat, as long as it is tasty. And French fries are.”*

Often unhealthy food, like snacks and candy, was too tasty to resist and consumption of these was a part of school culture and meeting with friends. Having freedom of choice was important. Parents were held responsible for providing healthy meals three times a day. This justified the unhealthy eating habits between meals. *“I eat vegetables every day. But I do not eat much of it.”*

Physical activity (table 2)

Physical activity was mostly associated with playing sports and cycling as means of transportation, which were habitual activities for most respondents. Although most respondents were sufficiently active, they also had a fair amount of screen time (one to four hours a day). *“I have a lot of screen time each day. It makes you lazy. My mother says so. You know, it is just better to do other things.”* Physical activity was labelled as positive: it was healthy, fun and seen as a social activity. *“It is just fun to be with friends.”*

School was not considered a very active environment, despite three weekly, compulsory 50-minute lessons of physical education (PE) and some annual sports events. *“If only there was some extra space, like a playground, where you can go during breaks ...”*

Strategies for energy balanced related behaviour

Respondents were aware of the fact that body weight can be controlled by balancing energy intake and output. They found it important to notice the result of energy balancing efforts and be rewarded for it.

According to the respondents, healthy eating behaviour could be stimulated by making healthy food look more attractive, for example packing snack fruit and vegetables in little bags. At home unhealthy snacks, like crisps, should not be made available every day. Fruit would be an acceptable replacement. Eating unhealthy food influenced the appetite for healthy food. *“Once we ate a lot of liquorice. As a consequence I did not eat dinner that night! We did it only once. That is not healthy, true.... but it is fun.”*

At school, offering free fruit would be nice as long as it is fresh and has no spots of decay. Already existing cooking lessons could focus more on health aspects. *“We made macaroni. We did not talk about whether it was healthy or not. It was tasty.”*

Most respondents stated they would prefer playing sports than using the computer and doing homework for school. Parents could encourage their children to be more active by providing opportunities, equipment and transport to sports facilities and by being active themselves.

Respondents valued their sports club membership, where they could enjoy social contacts outside the school setting. At school, obligatory sports activities after lessons could help, especially when made attractive for inactive students. Not all respondents agreed with offering extra voluntary sports activities because they found lengthening of the school day a serious drawback. *“I would not go every day, you know. Because sometimes, you have homework for the next day ...”*

Discussion

Although the respondents could point out the basic principles and the importance of a healthy lifestyle and healthy eating, matters concerning health had no priority in their decision-making. Being overweight was considered being negative in terms of health and social well being, but respondents did not take any specific actions to prevent from gaining weight.

The respondents expected their parents to stimulate a healthy lifestyle by providing healthy meals and opportunities and means to play sports and to cycle. Therefore, they felt no responsibility for actively pursuing a healthy lifestyle and felt free to make unhealthy choices at school or when being with friends. Being able to have a choice was important. Related to food, the unhealthy choice was often more tempting. Although physical activity was labelled as positive, the respondents also had a lot of screen time.

According to the respondents, strategies to stimulate healthy behaviour at home consisted of their parents not providing unhealthy snacks and candy on a daily basis, stimulating physical activities and parents setting a good example. At school, healthy food should be made more attractive and cooking lessons could focus more on health. Also, the school should offer more opportunities to be active especially for adolescents who do not like participating in sports. Almost all strategies mentioned by the respondents concerned environmental conditions, which were under responsibility of

parents or school. There were no suggestions regarding the creation of more awareness or a healthier social group norm.

Cognitive mediators

The results of this study confirm the image of adolescents found in other studies. Health is not prioritised in this age group. Although the respondents have a positive attitude towards health and health behaviour, they do not act accordingly. Being able to do what you want, feeling physically fit, being happy and having friends and family around are factors that seem to have more priority than healthy behaviour. There is little concern about future consequences of unhealthy behaviour (Jenkins and Horner 2005; Schoenberg et al. 2006; van Exel et al. 2006)

At home, the subjective family norm is dominant, especially for food choices (Jenkins and Horner 2005). These 14-year old respondents claim that their parents are responsible for their healthy lifestyle and therefore are willing to adapt to most rules at home. However, there seem to be other norms at school, which are more representative of the peer group culture. This culture involves unhealthy eating behaviour and a healthy activity pattern (De Bourdeaudhuij 2001; Hohepa et al. 2006; O'Dea J 2003).

Respondents have an optimistic perception of their ability to control their bodyweight. This is probably another reason why a healthy lifestyle does not have priority. With a prevalence of approximately 15% overweight adolescents in the Netherlands (van den Hurk et al. 2007), one can wonder whether this perception is realistic. Other studies mention lack of time in general and school home work as barriers to be sufficiently active (De Bourdeaudhuij 2001; Neumark-Sztainer et al. 1999) and hunger, cravings, food appeal, convenience, availability and media as triggers to eat unhealthy food (Jenkins and Horner 2005).

To stimulate healthy behaviour, increasing behavioural intent is needed. In this manner healthy norms at home can be enforced at school and vice versa to become the dominant norm. As a result of this, healthy choices can be adopted into the peer group culture. Moreover, adolescents need to experience that they can control their behaviour, for example by giving them assignments to limit food intake or register their activities. Similar assignments have been used effectively, for example, in the program Planet Health (Gortmaker et al. 1999).

Environmental factors

Environmental factors have become more important in understanding and preventing overweight and obesity (Swinburn et al. 1999). In the focus groups, the respondents spoke about their most important micro environments: home, school and the neighbourhood or sports club. Although they were aware of measures on a macro level, such as lifestyle campaigns and subsidies, these measures felt distant to them. Barriers and benefits on a micro level are easier to understand, to explain and probably to influence.

The physical, rural environment of Zwolle (110.000 inhabitants) is beneficial for adolescents who wish to be active. By cycling to school, many adolescents meet the recommended amount of daily exercise (Kemper 2000). They prefer to be or play outside, where they meet their friends and are away

from parental supervision. Unfortunately, the school environment lacks opportunities to be active, except for PE-lessons. With regard to food and healthy eating, the environment is also lacking in stimulating these healthy behaviours. Unhealthy food is readily available. A study by Neumark-Sztainer et al. (1999) showed that a healthy school canteen alone is not considered to be effective in reducing unhealthy eating behaviour. However, when a healthy school canteen is combined with other stimulating activities in an integral school approach, a healthy canteen does seem to add to a positive behavioural effect (Singh et al. 2007).

Both at home and at school, there are rules about dietary behaviours. Adolescents understand and accept these rules, but are prepared to break them. The parental role must not be underestimated: a parent taking an active and stimulating role can have a positive effect on the health behaviour of their children (Laskarzewski et al. 1980).

Lack of money did not seem to be a barrier for the respondents. This can be a limiting factor however, as other studies mention the difference in sports membership between different social economic classes (van der Horst et al. 2007).

The social-cultural environment of a lower vocational school is unfavourable for healthy behaviour. Students of lower vocational schools are marked by a higher prevalence of overweight, a higher expenditure pattern in the school canteen and a higher prevalence of low-educated parents (van der Horst et al. 2007). School initiatives like a curriculum with extra sports activities are only accessible for students with a higher education level. On the other hand, the need for health education at lower vocational schools does not go unnoticed and they do seem to reserve more time in the curriculum for it.

In order to increase the responsibility of adolescents for their own health behaviour, they need to be more involved in creating a favourable environment, especially in the school setting and at home. At school, students can, for example, participate in managing the healthy school canteen and organizing physical activities. Health education and PE-lessons can relate to these activities. In the home environment parents can be involved by assisting in preparing assignments or projects at home (Franks et al. 2007).

Moderators

Moderators, such as gender, ethnicity or age, do not directly influence energy balanced behaviour but contribute in interaction with the environment and cognitive mediators to the effect of interventions. Moderators as such have not received much investigation. Based on the focus group interviews the following important moderators were found: personality, strength of habitual behaviour, felt responsibility and gender. Kremers et al. (2007) found similar results in his study about moderators for energy balance related behaviour.

Other studies confirm a gender difference: girls prefer different physical activities from boys and have a different motivation to be active (Hohepa et al. 2006; Kremers et al. 2007; Wilson et al. 2005). In general, adolescents have different personalities which determine their health behaviour, thus needing different approaches in interventions (van Exel et al. 2006). Going from primary to secondary school is a major change of environment in which new habits develop. For example, the

respondents developed the habit of buying snacks during or after school. The change in habits is a result of the growing autonomy of adolescents in this age group (van Exel et al. 2006) and therefore hard to influence.

Nevertheless to improve energy balanced behaviour, moderators such as behavioural habits and responsibility, cannot be ignored. In the school setting the school staff appeal to the responsibility of students even more than parents do at home. Therefore, the school is an appropriate setting to make adolescents more responsible for their health behaviour.

Strategies

Several studies show that interventions using an integral school approach seem to be the most successful. Health education lessons are combined with extra physical activities and a healthy school canteen (Gortmaker et al. 1999; Leurs 2005; Martens et al. 2008; Singh et al. 2006). To ensure that interventions will become sustainable, they should be included in school health policy. Unfortunately, few Dutch secondary schools have a written policy on school health, although most schools have activities to stimulate health behaviour (Leurs et al. 2007). This also applies to the lower vocational schools in the Zwolle region (Middelbeek 2007).

Limitations of the study

Only 37 respondents participated in five focus group interviews. These students were motivated to participate in an interview on health behaviour. It is not clear how representative they are of the population of students attending lower vocational schools. Based on the difference in personalities, it is plausible that not all peer-students will agree. However, the focus group interviews give an insight into the way adolescents think, feel and act regarding eating behaviours and physical activity. These insights are useful for the development of effective and sustainable interventions aimed at stimulating healthy eating and physical activity at schools. However, they need to be confirmed in a quantitative study among a larger group of respondents.

Conclusion

This study shows that adolescents find health and a healthy weight important and like to have a choice when it comes to health behaviour. The choices they make, however, are often unhealthy, especially when related to food. The risk perception of these adolescents is low; as long as they feel healthy, they feel no need to change their behaviour.

Parents are held responsible for providing opportunities for healthy behaviour. At the same time, parental influence lessens and adolescents start to develop unhealthy habits, usually under the influence of a peer group. As adolescents continue to place the key responsibility for their healthy behaviour with their parents, they need to be made more aware of their own role in this process.

By developing an integral school health policy, the school can make a major contribution, seeing that adolescents accept the pedagogical role of the school staff. Using different methods, such as active learning, involving adolescents in the design of activities in the school environment and

setting a good example, schools can enhance adolescent responsibility, facilitating healthy choices by making them easier and more attractive.

This study only focuses on the perceptions and ideas of fourteen year old students. As it turns out, these adolescents place key responsibility for healthy behaviour with their parents and accept the interference of school, meaning there are good opportunities for school-based interventions.

Subsequently, more information is needed about the perceptions of parents and school staff regarding stimulating healthy dietary and physical behaviour in these adolescents. Moreover, a better understanding is needed of what is necessary to implement and preserve integral school health interventions successfully.

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Table 1 Key questions for focus group interviews

Theme	Question
Health	What is health? How important is health to you and your classmates?
Body weight	What is a healthy weight according to you and your classmates?
Healthy eating	What is healthy eating according to you and your classmates? What are the benefits of healthy eating? What are the barriers for you and your classmates to eat healthy? What can be done to promote healthy eating among students?
Physical activity	What are the benefits of physical activity? What are the barriers for you and your classmates to be physically active? What can be done to promote physical activity among students?

Table 2. Determinants for health behaviour, body weight, healthy eating and physical activity according to students (12 – 14 years old)

	Cognitive mediators (TPB)	Environment (ANGELO)	Moderators (personal and behavioural characteristics)
Health and health behaviour	Physical, mental and social well being are equally important. Determining factors for health behaviour: habits, social influence of friends, fun. Health and being healthy is not a priority in life		
Body Weight	A healthy weight was considered a determining factor for being healthy, especially social well being. Students felt able to control their weight. No specific actions were taken to prevent from gaining weight.	At home, a healthy weight was of concern, however not much discussed. At school, healthy body weight was measured and discussed in biology or health lessons.	Girls are more concerned than boys. Girls seemed to apply thinner norms than standard to themselves, while boys did not.
Healthy eating	<ul style="list-style-type: none"> • <i>Attitude:</i> Healthy eating is important for being healthy, feeling fit, learning abilities. By eating healthy during meals, students felt justified to eat what they liked in between. • <i>Social influence:</i> Students like to go out and buy and eat snacks with friends. • <i>Perceived behavioural control:</i> Students found it hard to resist the temptation of snacks. 	<ul style="list-style-type: none"> • <i>Physical</i> Unhealthy and healthy food was available at home and at school. • <i>Political</i> Parents were held responsible for providing healthy food during the three main meals. Rules, limiting the amount of snacks are accepted, but also broken regularly at home and at school. • <i>Economical</i> Respondents were not prepared to spend pocket money on healthy food. • <i>Cultural:</i> Students had understanding 	<ul style="list-style-type: none"> • <i>Person:</i> Having a choice what to eat was important. Food choices were no conscious decisions. Awareness of unhealthy eating habits existed. • <i>Behaviour</i> Snacking during breaks and free hours at school, coming home after school and while watching TV was a habit.

		but were sceptic about the effectiveness of the principle of a 'healthy' school canteen.	
Physical activity	<ul style="list-style-type: none"> • <i>Attitude</i> PA was labelled positive: healthy and fun. • <i>Subjective norm:</i> PA was part of social life. • <i>Perceived behavioural control:</i> Cycling and sports club membership were habitual. 	<ul style="list-style-type: none"> • <i>Physical:</i> Playgrounds in the neighbourhood. Equipment at home. Few opportunities at school. • <i>Political:</i> Community funds for sports membership. • <i>Economical:</i> Money was no limiting factor. • <i>Socio-cultural</i> Gender difference: girls liked variation and less competition (at school), boys preferred team sports like soccer. 	<ul style="list-style-type: none"> • <i>Person</i> Some respondents did not know an enjoyable sport. Active students had no intention to quit playing sports. • <i>Behaviour</i> Only already active and well performing students participate in sports events.