

Workshop on ‘Changing nutrition behaviour to improve maternal and fetal health’

A review of factors affecting the food choices of disadvantaged women

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The diets of young women are important not just for their own health but also for the long-term health of their offspring. Unbalanced unvaried diets are more common amongst poor and disadvantaged women. If the diets of these women are to be improved, it is first necessary to understand why they make the food choices they do. Influences on women’s food choices range from the global to the individual: environmental factors, such as difficulty in acquiring and affording good-quality healthy foods; social support and social relationships, such as those with parents, spouses and children; life transitions, such as leaving home, living with a partner or having children; individual factors, such as having low perceived control or self-efficacy in making food choices and placing a low value on health in general and on their own health in particular. These interrelated factors all influence food choice, suggesting that if the diets of disadvantaged women are to be improved, it will be necessary to do more than simply educate about the link between diet and health.

Food choice: Disadvantage: Women’s health: Psychology

The present paper aims to review the range of factors that affect the food-choice decisions made by disadvantaged women as a step towards meeting the challenge of improving the health and nutrition of disadvantaged populations. The diets of young women are important not just for their own health, but also for the long-term health of their offspring^(1,2). Unbalanced and unvaried diets are known to be detrimental to the growth of babies^(3–5) and are more common in disadvantaged women^(6,7). Women of lower educational attainment are much more likely to eat a poor-quality diet than women of higher educational attainment⁽⁸⁾. Improving the diets of disadvantaged women before and during pregnancy may hold the key to breaking the cycle of disadvantage and ill health suffered by the poor in Britain today.

Understanding food choice

Influences on women’s food choices range from the global to the individual. Global influences are shaped by the productionist paradigm of food provision, which in today’s developed world means extensive food choice is available

to individuals who have the necessary resources⁽⁹⁾. These resources include money, access to shops, time and the knowledge required to choose and prepare the variety of food products on offer. The negative side to the extensive range of foods available is that many of the cheapest easiest-to-prepare ‘convenience’ foods are high in saturated fats and sugars, which are undesirable in a healthy diet. The choices an individual makes are going to be determined partly by what retailers offer.

Macro-environmental influences will vary according to local community and social circumstances shared by individuals living in similar situations. Micro-environmental influences such as family dynamics will affect the choices made by the household. Individual influences, such as preferences, will determine who eats what within that household. To make food choices individuals need to consider what, how, when, where and with whom they will eat, as well as selecting and consuming foods. These choices express preferences, identities and cultural meanings and are based on an individual’s lifetime experience of food and expectations for the future⁽¹⁰⁾. The importance of these factors for the food choices of disadvantaged women will be presented under four broad headings,

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i.e. environmental, social, historical and psychological influences on food choice.

Environmental factors

Cost

Large socio-economic differences in patterns of diet suggest that a woman's environment has an important impact on her food-choice decisions. One of the biggest factors in this relationship will undoubtedly be income, together with the availability and affordability of good-quality healthy foods. Having lower socio-economic status and being poor are strongly related to consuming an inadequate diet⁽¹¹⁾, particularly where food insecurity exists, and women make trade-offs between their own health and that of their children⁽¹²⁾. Women will ensure their families are fed before they feed themselves, even if it means they themselves go hungry. More specifically, poverty is associated with a reduced variety of foods eaten and with low fruit and vegetable consumption⁽⁷⁾. A study looking at children's diets has found that eating less healthily and snacking are associated with greater deprivation and lower maternal education⁽¹³⁾.

Income may also be one of the reasons for the failure of initiatives to increase the consumption of fruit and vegetables amongst groups of lower socio-economic status. It has been found that whilst low income does not appear to be a barrier to buying the habitual amount of fruit and vegetables, participants claim that they cannot afford to buy larger amounts⁽¹⁴⁾. It is viewed as an additional expense, rather than an exchange of some food items for healthier options. The authors conclude that motivational, psycho-social and lifestyle factors present a bigger problem in increasing fruit and vegetable consumption than access and affordability. Focus-group data from Southampton, UK suggest that women of lower educational attainment balance cost with potential for waste when deciding whether to buy fruit and vegetables⁽¹⁵⁾, some of them feeling that it is more cost effective to buy more expensive frozen vegetables rather than fresh, because less is thrown away.

Access

Linked to the affordability of food is the issue of access. There is a substantial literature debating the existence of 'food deserts', i.e. populated urban areas in which residents do not have access to affordable healthy foods⁽¹⁶⁾. These areas are said to be the result of the development of edge-of-city superstores leading to the closure of smaller inner-city and suburban food stores, which has disadvantaged consumers who do not have access to a car⁽¹⁷⁻¹⁹⁾. Smaller corner stores have less fresh food and are more expensive, implying that consumers without cars may struggle to eat a healthy diet. However, it is not clear that food deserts are quite as big an issue as some investigators have suggested⁽¹⁶⁾. Big 'multiple' stores are able to stock a wide variety of reasonably-priced products, and are moving back into city centres and local sites. Many shops located in or near deprived areas stock a range of basic food items either

similar in price to or cheaper than those in more-affluent areas⁽¹⁶⁾. However, one major study has reported that a new superstore built in an area of poor food retail provision did lead to a sudden and marked improvement in access to healthier food items and a corresponding increase in fruit and vegetable consumption⁽²⁰⁾.

There may be an issue of access to healthy affordable food in some areas and for some individuals. Evidence from Southampton women is that access as such is not an issue. Those women who did not have access to a car did mention the difficulties of fruit and vegetable shopping, but these difficulties were about carrying heavy weights on a pushchair rather than not having access⁽¹⁵⁾. This finding suggests that the whole shopping experience should be considered when developing initiatives to encourage this population to eat more healthily.

Social factors

Food consumers exist within the contexts formed by other individuals and groups, such as family and friends, food industries and governments⁽²¹⁾, and much still needs to be understood about how individuals manage food choices in social relationships⁽²²⁾. Social support from family, friends and co-workers has been found to predict 12-month increases in fruit and vegetable intake, independently of demographic factors⁽²³⁾. Social relationships, such as those with parents, spouses and children, are important influences on personal food systems and rarely remain stable over time. They are affected by life transitions, such as leaving home, living with a partner or having children. Families and households provide one of the most important sets of interpersonal relationships influencing food choice.

It has been reported that when women move in with a partner their food choices become constrained by the man's preferences⁽²⁴⁾. Thus, eating has the potential to create conflict and to influence the health of both partners. Negotiations ensue and are important to understand because of the high proportion of food eaten with, or under the influence of, a partner⁽²²⁾. Whilst women tend to do the majority of food shopping and preparation, the preferences of men and children in the home are primary influences on the food choices made⁽²⁵⁾. In a recent study women cite objections from male partners as the greatest barrier to healthier eating⁽²⁶⁾. It was found that some of the women who had modified their diets to make themselves feel better, gave up these changes under the influence of a new partner. Children were often described as picky eaters, and whilst some women refused to accommodate children's preferences, others only cooked meals they knew the family would eat, thus impacting on the quality of the whole-family's diet.

Others researchers suggest that a woman's perception of her role within the household influences her food choices for the family⁽²⁶⁾. It has been reported that participants see healthier eating as being more common for married couples, and one participant talked of it being part of her spousal role to encourage her husband to eat more fruit and vegetables⁽²⁷⁾. A woman's need to manage social relationships or minimise cost can come into conflict with her

desire to provide healthy food choices⁽²⁷⁾. Introducing healthier foods is often met with resistance from family members who refuse to eat them, so women have a dilemma⁽²⁸⁾. Unless faced with an important health crisis, women tend to place a higher priority on maintaining social relationships through meeting others' food desires rather than persisting in efforts to provide healthy food choices⁽²⁶⁾. In a study to investigate barriers to healthy eating within the family context it was found that women with children see increasing fruit and vegetable consumption as more feasible than do other women⁽²⁹⁾. It could be that an increased sense of responsibility towards ensuring healthy food is available in the household for children has a positive effect on a woman's perceived ability and motivation to change her family's eating behaviour. Again, data from Southampton women suggest that women from all socio-economic status groups take the health of their children very seriously and believe in the importance of feeding them a healthy diet, even if they do not always feel able to provide healthy foods⁽³⁰⁾. Making healthy food-choice decisions for their children and meeting with persistent opposition demands skilled and confident parenting. Food and eating are central to domestic harmony. The way social relationships and household food provision are managed by women is likely to have been learned through early-life experiences and life events.

Historical factors

It has been suggested that food-management processes rely heavily on tradition, with the study finding that over their lifetime the participants had developed strong beliefs and feelings about the way they should be eating and providing food for others⁽³¹⁾. Memories from childhood provide images that stay throughout adulthood; thus, homemade or mother's cooking are used as reference points for how food should be prepared and taste⁽³¹⁾. Each time they choose a food individuals bring their past food choices, events and experiences to bear; they are thus strong influences on personal systems for food choices^(27,32). The thoughts and feelings associated with those choices, and the temporal, social and historical contexts that have helped to shape them, make up individuals' life-course trajectories of food choice. Trajectories are cumulative, developing over the lifetime and incorporating meaningful experiences with food and eating. Thus, food-choice trajectories lead to habitual food selections that can affect how individuals adjust to transitions such as ageing and health changes⁽³²⁾. It has been found that participants' fruit and vegetable trajectories are shaped by seven major types of experiences and events over the life course: food upbringing; roles and role transitions; health; ethnic traditions; resources; location; the food system i.e. ever-changing diet and health information related to nutrition across the lifespan⁽²⁷⁾.

Food experiences early in life are a prominent factor in shaping current food choices, and provide lasting 'food roots'. The role of tradition and the women's past experiences may be key influences on how she considers food within her family; what she is prepared to buy, prepare and cook being restricted if her experiences are limited or

negative. Positive childhood experiences lead to more positive trajectories of lifelong healthier food consumption. Foods disliked or not featuring in childhood tend not to be incorporated into personal food systems and remain uneaten⁽³²⁾. Food preferences develop at a very early age, and repeated exposure to a variety of foods enhances the probability that this taste for a wide range of foods will be maintained throughout life. Infants sometimes only need one exposure before developing a preference for a particular food⁽³³⁾, with older children it takes approximately eight to ten exposures^(34–36) and in adulthood it takes many more exposures to develop a preference for a flavour previously disliked⁽³⁷⁾. Thus, the tastes experienced by individuals in early life will largely determine the foods they eat as an adult, and habits, once acquired, are hard to break. It has been found that negative experiences of food and eating in childhood are common to disadvantaged women in Southampton, and these women describe the ways in which this experience has left them with a dislike for certain foods and a limited knowledge of many others⁽³⁰⁾. Some women react against their own experience and, realising how far-reaching its effects are, want to provide their own children with more positive experiences of food⁽³⁰⁾. The life-course transitions into marriage or partnership and into parenthood are often times of dietary change and have been proposed as windows of opportunity for improving food choices.

Psychological factors

Ultimately, the influence of all these factors operates through food choices made by the individual. Psychological concepts that have been identified as determinants of food choice include perceptions of control and self-efficacy, attitudes and beliefs, mood and self-esteem and the value given to eating a healthy diet.

Control

It is argued that control is a key concept in the psychology of health⁽³⁸⁾. Health locus of control is a specific measure of control beliefs about health⁽³⁹⁾. Research shows that chance health locus of control (belief that good health is a result of chance) is consistently related to being of lower socio-economic status and the higher likelihood of health-compromising behaviours, such as smoking, sedentary lifestyles and poorer diet⁽⁴⁰⁾. Women of lower educational attainment and low socio-economic status are more likely to feel that their future health is an inevitable consequence of chance rather than under their control^(39,41). Other research has shown that women with higher levels of education eat fruit and vegetables more frequently and believe less in chance and more in eating healthily as a way of maintaining their health^(42,43).

A strong theme in focus-group discussions with women of lower educational attainment is their sense that they lack control over food choices for themselves and their families⁽¹⁵⁾. Partners and children give them little support for making healthy food choices and exert a high extent of control over foods bought and prepared for the family.

Perceptions of the high cost of healthy food, the need to avoid waste and being trapped at home surrounded by opportunities to snack all constrain these women's freedom to make healthy food choices. Having limited skill and experience with food further undermines their ability to feed their families in the way they feel they should. All these factors contribute to women's loss of control over their food choices⁽³⁰⁾.

Self-efficacy

Self-efficacy refers to an individual's perceived ability to achieve a desired outcome, which affects every phase of personal change, i.e. whether they consider changing their health habits, find the motivation and perseverance needed to succeed and how well they maintain new health habits once achieved⁽⁴⁴⁾. Individuals' beliefs that they can motivate themselves and regulate their own behaviour play a crucial role in whether they change their behaviour. Thus, measures of perceived self-efficacy are important in predicting health behaviour and behaviour change. Women with higher educational attainment believe more in their own competence and ability to control their behaviour and its outcome⁽⁴³⁾.

Certain processes have to occur for the successful provision of food to a household, involving food acquisition, storage, preparation, cooking, service and disposal, as well as organisation and coordination of time, tasks and household eating schedules. Women carrying out these tasks clearly have to have an extent of self-efficacy in their food choices and decisions about the family diet. In studies of individuals living in low-income neighbourhoods higher perceived self-efficacy has been found to be related to greater self-reported consumption of fruit and vegetables⁽⁴¹⁾. Furthermore, short-term increases in the self-efficacy of individuals of low income have been found to predict long-term changes in fruit and vegetable intake⁽²³⁾.

Food-choice values

Values are the enduring beliefs that guide and motivate behaviour and are important in food choices. Research has shown that the most-frequently considered food-related values are health, taste, cost, convenience and managing relationships⁽⁴⁵⁾. These values are often in conflict. Any value has the potential to be the deciding factor in a given situation, but when conflicts among values occur one typically emerges as dominant. In the case of women of lower educational attainment household harmony is often preserved at the expense of healthy food choices⁽³⁰⁾. Values have to be prioritised and compromises made over food choices. Women appear to be more accommodating in this context than men; apparently because they place higher value on maintaining social relationships⁽⁴⁵⁾.

Health value is a complex multidimensional concept, and work with disadvantaged women suggests that it is not necessarily the dominant value when making food choices⁽³⁰⁾. It is clearly a more important consideration in food choices women are making for their children than in the food choices they are making for themselves, which suggests that reinforcing the importance of healthy food

choices for her children might have more impact on a woman's quality of diet than stressing its importance for herself.

Mood

An individual's mood may well influence their priorities and values. Psychological studies of mood often concentrate on positive or negative affect and self-esteem. These factors are measurable aspects of psychological well-being and are related to behaviour. It is suggested that individuals rely partly on their affective state in judging their capabilities, so mood can affect judgements of personal efficacy⁽⁴⁶⁾. Thus, a negative affect is likely to reduce an individual's perceived self-efficacy and personal control and thereby reduce the likelihood that they will attempt to undertake an action.

It is suggested that having good food-management skills provides individuals with self-esteem and a feeling of empowerment within the household⁽³¹⁾, which is likely to have a positive influence on their affective state. Food-management skills appear to be durable resources that help individuals meet personal food-related goals and adapt to changing circumstances, thus providing self-esteem. Other research has shown that dietary habits are related to nutritional attitudes and emotional distress⁽⁴⁷⁾. Using the nutrition attitude scale, which measures attitudes towards the adoption of a low-fat low-cholesterol diet⁽⁴⁷⁾, it was found that participants scoring highly on the 'helpless and unhealthy' factor eat more meat, are overweight, report more symptoms of emotional distress and have a history of more medical symptoms. It appears that a cluster of negative food attitudes is related to psychological and nutritional status as well as weight and physiological measures of coronary risk.

Some of the disadvantaged women in focus groups in Southampton have expressed concern with their weight and appearance. They describe not valuing themselves enough to be bothered to make healthy choices for themselves or to go to the trouble of cooking for themselves⁽³⁰⁾.

Improving diets

The evidence described here suggests that to improve the diets of disadvantaged women it will be necessary to do more than simply educate about the link between diet and health. There is a range of environmental, social, historical and psychological factors that may hinder individuals from using their knowledge about healthy eating to improve their diets. These factors include food preferences stemming from childhood, life skills such as cooking, perceived social support, attitudes and beliefs about health and healthy-eating messages and the ability to put them into practice, as well as cost and access to food⁽⁴⁸⁾.

Individuals interact in a variety of micro-environments, such as schools, workplaces, homes and restaurants, which are influenced by broader macro-environments such as the food industry, government and societal attitudes. In the UK most food is still eaten within the home. As family dynamics appear to have an important influence on food

choices, there is an argument for using a family-based intervention to encourage change. If no account is taken of the context of food choice and eating events, interventions are unlikely to be successful⁽⁴⁹⁾.

Healthy-eating interventions can have an impact on awareness, knowledge and intention to change. However, behaviour is not usually influenced, particularly in those with lower socio-economic status and lower educational attainment^(50,51). The most-vulnerable groups, who are the most in need of change, are the hardest to reach and engage in behaviour change initiatives⁽⁴⁸⁾. They are often under-represented in interventions or have higher drop-out rates, so different strategies are required to target these groups. The challenge is to interest them in change if long-term health is not their top priority. Tailored approaches may be more successful, with different approaches for disadvantaged and hard-to-reach groups and for different aspects of diet⁽⁵²⁾.

A recent study has asked participants 'What is the single most important thing that you could do, or that could be done, to make it easier for you to eat a healthy diet?' The most popular responses, in decreasing order, were reported to be: having more time to prepare healthy food; having more fresh or healthy food in the house; having tasty or healthier food alternatives available; greater motivation and self-control; being able to limit sugary snacks and eat more fruit and vegetables⁽²⁹⁾. These findings clearly demonstrate the need to develop interventions that can address multiple influences on food choice rather than concentrating on changing one factor alone.

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