

Meat Attachment and Willingness to Adopt Plant-Based Diets: An Integrative Literature Review

Obi Olor^{1*}, Dr. Eyo Bassey Ekpe², Ishiekwen Bridget Ushang³, Ofem Stella⁴

University of Education and Entrepreneurship

*Corresponding Author

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ABSTRACT

Plant-based eating has received increasing attention because of its possible contributions to human health, environmental sustainability, and animal welfare. Yet changing what people eat is rarely a matter of information alone. For many consumers, meat is tied to pleasure, routine, family life, cultural identity, social status, and beliefs about health and strength. This review examines the psychological, cultural, social, and structural factors that shape attachment to meat and willingness to reduce meat consumption or move toward more plant-based eating patterns. An integrative literature review was undertaken using PubMed, Google Scholar, Scopus, and ScienceDirect. The search covered January 2005 to June 2024, while earlier seminal theoretical works were retained where they remained important to the subject. The review included literature dealing with meat attachment, meat reduction, plant-based dietary adoption, and related determinants of dietary behaviour among adults. Sixty-eight peer-reviewed studies were reported as meeting the stated criteria. Across the literature, three broad areas stood out: psychological and emotional attachment to meat; cultural and social identity; and the barriers and facilitators associated with dietary change. Taste, habit, identity, social expectations, perceived nutritional dependence, affordability, and availability repeatedly appeared as barriers. Health concerns, environmental awareness, cooking confidence, supportive social networks, and gradual approaches to reducing meat were among the more common facilitators. Overall, the evidence suggests that meat attachment is an important correlate of willingness to change, but awareness by itself does not consistently lead to lasting dietary change. Interventions are therefore more likely to succeed when they are practical, culturally appropriate, positive in tone, and supported at several levels of the food system. The limited representation of African studies, particularly Nigerian research, remains an important gap that future longitudinal work should address.

Keywords: Meat attachment; plant-based diets; dietary transition; food behaviour; social identity; sustainability.

INTRODUCTION

Food choices are often discussed as though people make them mainly by weighing nutritional facts. Everyday eating is considerably more complicated. What appears on a person's plate is influenced by taste, habit, family expectations, income, availability, identity and the social meaning attached to particular foods. Meat provides a useful example of this complexity. For some people it is simply one source of protein; for others, it represents enjoyment, hospitality, celebration, prosperity or a familiar way of eating that has been reinforced from childhood. (Ajzen, 1991; Graça et al., 2015; Rosenfeld, 2018).

In this review, meat attachment refers to the psychological, emotional, and cognitive ties that make reducing meat consumption difficult (Graça et al., 2015). The construct is commonly discussed through four dimensions: hedonism, affinity, entitlement and dependence. Hedonism concerns the pleasure derived from taste and texture. Affinity captures the emotional and habitual value of meat. Entitlement reflects the belief that eating meat is natural or that people have a legitimate right to do so. Dependence refers to the perception that meat is nutritionally necessary or difficult to replace. (Graça et al., 2015).

These dimensions help explain why information about the health or environmental consequences of meat consumption does not automatically translate into behavioural change. A person may understand the arguments for eating less meat and still find it difficult to change a familiar meal pattern. In this sense, dietary transition involves more than replacing one ingredient with another; it can involve renegotiating routines, social expectations and aspects of identity. (Bastian & Loughnan, 2017; Piazza et al., 2015).

The wider discussion around sustainable eating has intensified in recent years. Plant-based dietary patterns are increasingly promoted because of their potential links with health and environmental benefits. At the same time, meat-centred food cultures remain strong. In a number of African and Nigerian settings, meat is associated with hospitality, celebrations, ceremonies, and perceptions of affluence. Familiar dishes such as suya, pepper soup and meat-rich versions of traditional stews illustrate how closely meat can be woven into culinary identity. These cultural meanings matter when dietary interventions are designed, because a message that ignores them may be rejected even when its nutritional reasoning is sound. (Stoll-Kleemann & Schmidt, 2017; Willett et al., 2019).

The Global Move Toward Plant-Based Eating

Interest in plant-based eating has grown alongside concern about chronic disease, climate change, greenhouse-gas emissions, and the use of land and other natural resources. Major dietary discussions increasingly encourage moderation of red and processed meat, particularly where consumption is high. Nevertheless, intentions and actual behaviour often differ. People may express support for healthier or more sustainable diets without making corresponding changes to their everyday meals. (Stoll-Kleemann & Schmidt, 2017; Willett et al., 2019).

Meat attachment provides one explanation for this gap. Research suggests that resistance can arise from sensory expectations, established routines, social norms and beliefs about what constitutes a proper or satisfying meal. These influences are not distributed equally across societies. In settings where meat has strong symbolic value, dietary change may be interpreted as a challenge to tradition or social belonging rather than simply a personal nutrition choice. (Graça et al., 2015; Hartmann & Siegrist, 2020; Rosenfeld & Burrow, 2017).

The Nigerian context is particularly important. Meat-based foods form part of many social occasions and everyday meals, while plant proteins such as beans, cowpea, groundnut and soybean are already familiar in local food systems. The challenge is therefore not necessarily the absence of plant foods. Rather, it may involve how these foods are valued, prepared, presented and incorporated into meals that people regard as satisfying and culturally appropriate. (Mwangi et al., 2021; Oniang'o & Komokoti, 2021).

Significance of the Review

Understanding meat attachment is useful for nutrition educators, public-health practitioners, behavioural researchers and policy makers. If dietary interventions concentrate only on telling people what is healthy, they may overlook the reasons people continue to eat in familiar ways. A fuller understanding of attachment can help practitioners develop interventions that address enjoyment, identity, social support, practical cooking skills and the realities of food access. (Graça et al., 2015; Rosenfeld, 2018).

The review also has relevance for African food systems. The evidence base remains disproportionately concentrated outside Africa, while the cultural meanings of meat differ between societies. More research from Nigeria and other African countries is therefore needed before conclusions developed mainly in Western settings are treated as universally applicable. (Mwangi et al., 2021; Oniang'o & Komokoti, 2021).

Research Question

What psychological, social, cultural and structural factors associated with meat attachment influence adults' willingness to reduce meat consumption or adopt more plant-based dietary patterns?

Operational Definitions

For the purposes of this review, a plant-based diet is understood as a dietary pattern that places greater emphasis on foods derived from plants while potentially allowing some animal-source foods. Vegetarian and vegan diets are treated as distinct patterns. Flexitarian and reductarian approaches refer to deliberate reductions in meat intake rather than complete exclusion. Accordingly, willingness to reduce meat and willingness to adopt a plant-based diet are related outcomes, but they are not treated as identical. (Rosenfeld & Burrow, 2017; Janssen et al., 2016).

METHODOLOGY

Research Design

An integrative literature review design was used to bring together evidence from nutrition, psychology, sociology and cultural research. This approach was appropriate because the subject crosses disciplinary boundaries and includes quantitative, qualitative and theoretical work. The available manuscript did not preserve the complete record-level screening information required for a fully reproducible PRISMA 2020 systematic review, so the study is presented as an integrative review rather than as a full systematic review. (Moher et al., 2009; Page et al., 2021).

Search Strategy

Literature was searched through PubMed, Google Scholar, Scopus and ScienceDirect. Search terms included combinations of “meat attachment,” “plant-based diet,” “dietary transition,” “meat reduction,” “sustainability,” “food choice,” “veganism,” “vegetarianism,” “attitude toward meat,” and “behavioural change.” Boolean operators were used to broaden or narrow searches. The principal publication window was January 2005 to June 2024, with earlier seminal theoretical works retained where relevant. Reference lists of retrieved papers were also examined for additional studies. (Page et al., 2021).

Inclusion and Exclusion Criteria

- Studies published in English.
- Empirical or theoretical work addressing meat attitudes, meat attachment or willingness to adopt plant-based diets.
- Studies involving adults aged 18 years and above.
- Research situated in psychological, cultural, nutritional or sustainability contexts.
- Studies examining interventions or determinants of behaviour change related to meat consumption.

Studies were excluded when they dealt only with animal welfare or environmental sustainability without behavioural evidence, lacked sufficient empirical or theoretical relevance, focused exclusively on children or adolescents, or were published before 2005 unless they represented seminal theoretical contributions.

Data Extraction and Quality Assessment

A structured extraction approach considered author, year, country, research design, sample characteristics, measurement instruments such as the Meat Attachment Questionnaire, key variables and findings relevant to meat reduction or plant-based adoption. Retrieved records were screened for relevance and duplicates were removed. The source material does not preserve the number of reviewers involved in screening or a formal disagreement-resolution process; those details should be supplied from the original records if they are available. (Graça et al., 2015).

Methodological quality was appraised using relevant Joanna Briggs Institute critical appraisal tools for cross-sectional, qualitative and experimental studies. The source manuscript states that studies were classified as high,

moderate or low quality and that studies judged to have at least moderate methodological rigour were retained. Study-level scores were not preserved, so aggregate appraisal counts are not reported here. (Moola et al., 2020).

Data Synthesis

The findings were organized thematically. Three broad themes repeatedly appeared: psychological and emotional dimensions of meat attachment; cultural and social identity; and barriers and facilitators associated with plant-based dietary adoption. Quantitative findings were described where available, while qualitative findings were synthesized narratively. This approach allowed the review to bring together different types of evidence without treating them as though they had been generated through the same research design. (Page et al., 2021).

Ethical Considerations

Because the review involved analysis of previously published research rather than direct recruitment of participants, separate ethical clearance was not required for the review itself. The manuscript nevertheless considered the ethical standards and participant-consent requirements reported in the underlying studies, and citation was maintained throughout to acknowledge the original sources.

Understanding Meat Attachment

Meat attachment can be understood as the relationship people develop with meat as a preferred, familiar or symbolic food. The Meat Attachment Questionnaire developed by Graça and colleagues captures four related dimensions: hedonism, affinity, entitlement and dependence. Taken together, these dimensions show why meat consumption can become part of a person's self-concept rather than remaining a simple matter of preference. (Graça et al., 2015).

The implications are important. If meat is associated with family memories, celebrations, comfort or social status, removing it may create a sense of loss. A successful intervention therefore needs to offer something meaningful in return: enjoyable food, familiar flavours, practical alternatives and social reassurance. The issue is not that consumers are incapable of changing; rather, change competes with several established sources of satisfaction and belonging. (Graça et al., 2019; Rosenfeld, 2018).

Cultural and Historical Meaning of Meat

Across societies, meat has often carried meanings that extend beyond nutrition. It has been linked to strength, prosperity, hospitality, gender roles and communal rituals. These meanings can be seen in festive meals and ceremonies where serving meat communicates generosity or social standing. In such situations, reducing meat may be experienced as a social decision rather than a private dietary one. (Leroy & Praet, 2017; Mwangi et al., 2021).

Research in Western settings has also examined the connection between meat and masculinity. Meat eating can be presented as evidence of strength or toughness, while plant-based eating may be unfairly associated with restraint or femininity. Such stereotypes can shape willingness to try alternatives, particularly where food choices are used to signal identity. (Rothgerber, 2013; Ruby & Heine, 2012; Rozin et al., 2012).

African contexts deserve particular attention. The available literature suggests that meat can have ceremonial and communal importance. However, these meanings vary between communities, and they should not be treated as uniform across the continent. This is one reason why locally grounded research is necessary when developing dietary interventions. (Mwangi et al., 2021; Oniang'o & Komokoti, 2021).

Psychological Explanations

Cognitive Dissonance and the Meat Paradox

Cognitive dissonance helps explain the discomfort that may arise when a person cares about animals but continues to eat meat. People can reduce this discomfort by changing their beliefs, changing their behaviour, or finding explanations that make the behaviour easier to justify. Research on the so-called meat paradox describes this tension between caring about animals and consuming them. (Festinger, 1957; Bastian & Loughnan, 2017; Dowsett et al., 2018).

Common justifications include the belief that humans are naturally meat eaters or that meat is necessary for health. Such explanations can protect an established dietary identity. The practical implication is that confrontational messages may sometimes produce defensiveness rather than change. Messages that connect plant-based choices to a person's existing values may be more constructive. (Piazza et al., 2015; Bastian & Loughnan, 2017).

Social Identity Theory

Food choices can also communicate group membership. Social Identity Theory suggests that people derive part of their self-understanding from the groups to which they belong. Where meat eating is the norm, choosing a vegetarian or vegan diet may feel like stepping outside the group. Conversely, joining a plant-based, environmental or health-oriented community can provide a new source of belonging. Whether dietary change feels rewarding or stigmatizing may therefore influence willingness to change. (Tajfel & Turner, 1986; Morris et al., 2021).

Theory of Planned Behavior

The Theory of Planned Behavior provides another useful way of interpreting dietary intentions. It emphasizes attitudes, subjective norms and perceived behavioural control. In practical terms, people are more likely to consider reducing meat when they view the change positively, believe that important people around them will support it, and feel capable of preparing and maintaining an alternative diet. High meat attachment can weaken these conditions, particularly when people believe that plant-based meals are difficult to prepare or inaccessible. (Ajzen, 1991; Tobler et al., 2011).

Determinants of Meat Attachment

Taste, Texture and Aroma

Sensory experience is one of the most immediate reasons people give for preferring meat. Taste, texture and aroma can become powerful reinforcers, particularly when a person has eaten the same foods for many years. Although plant-based meat alternatives have improved, unfamiliarity and expectations about taste can continue to shape acceptance. (Graça et al., 2015; Hartmann & Siegrist, 2020).

Habit and Convenience

Habits develop through repetition. If meat routinely appears in lunch, dinner or weekend meals, its presence becomes almost automatic. Convenience matters as well. People who lack confidence in preparing plant-based meals may find it easier to continue with familiar meat dishes. In lower-income settings, limited access to a variety of affordable alternatives can strengthen this pattern. (Graça et al., 2019; Lea & Worsley, 2003).

Emotional and Symbolic Associations

Food carries memories. A particular meat dish may remind someone of childhood, family gatherings or a celebration. Removing it can therefore feel emotionally significant. Traditional meals can be especially difficult

to change when their meaning is tied to family identity. One practical response is to adapt familiar recipes rather than simply replacing them with unfamiliar foods. (Ong et al., 2023; Graça et al., 2019).

Socioeconomic and Educational Factors

Income and education can shape awareness, access and willingness to experiment with new dietary patterns. Some studies associate higher education and income with greater openness to reducing meat, although the relationship is not straightforward. In developing settings, meat may itself be viewed as a sign of progress or improved economic circumstances. This can make a message about reducing meat appear, unintentionally, like a message against prosperity. (Rosenfeld, 2018; Janssen et al., 2016).

Barriers to Plant-Based Dietary Adoption

The barriers identified across the literature are interconnected. Taste and habit may combine with social pressure, while limited availability can reinforce the belief that plant-based eating is impractical. Nutritional misconceptions also matter. The belief that meat is indispensable for strength or adequate protein can discourage people from exploring legumes, nuts, seeds and other plant protein sources. (Lea & Worsley, 2003; Hoek et al., 2017; Stoll-Kleemann & Schmidt, 2017).

Food neophobia, or reluctance to try unfamiliar foods, provides another psychological barrier. People who are strongly attached to meat may be less willing to experiment with unfamiliar plant-based substitutes. Cost can also become a barrier when commercially processed meat alternatives are more expensive than locally available staple foods. (Rosenfeld, 2018).

Factors That Encourage Change

Health Motivation

Health concerns are among the strongest reasons people report for reducing meat. The reviewed literature connects high intake of red and processed meat with several chronic health outcomes. Individuals who are motivated by personal health may be more willing to consider dietary change, especially when they receive practical guidance or support from health professionals and peers. (Willett et al., 2019; Obi Olor et al., 2024).

Environmental and Ethical Awareness

Concern about climate change, environmental sustainability and animal welfare can also encourage meat reduction. Younger consumers in particular appear receptive to these arguments. However, concern does not always translate into sustained behaviour. The attitude-behaviour gap remains important: knowing that a behaviour has consequences is different from changing a routine that is reinforced every day. (Stoll-Kleemann & Schmidt, 2017; Tobler et al., 2011).

Social Influence and Marketing

What people see others doing can influence what they regard as normal. Friends, family members, social media and marketing all contribute to dietary norms. Positive and attractive presentations of plant-based meals can make them seem ordinary and desirable, while strong meat marketing can reinforce the opposite message. (Sparkman & Walton, 2017; Morris et al., 2021).

Approaches to Behavioural Change

Gradual Reduction

The reviewed evidence gives considerable attention to gradual approaches such as flexitarian eating, reducetarianism and initiatives such as Meatless Mondays. These approaches do not require people to abandon

meat immediately. Instead, they create room for experimentation and adjustment. For people who regard meat as part of their identity, this may be easier to accept than a demand for complete abstinence. (Graça et al., 2019; Verain et al., 2020).

Positive Framing

How a dietary message is delivered can be as important as the information it contains. Messages that emphasize taste, health, affordability and environmental benefits may be better received than messages built primarily around guilt. Positive framing also makes it easier to connect new foods with existing cultural preferences. (Bastian & Loughnan, 2017; Sparkman & Walton, 2017).

Culinary Education

Practical skills can turn willingness into action. Someone may agree that eating more plant foods is desirable but still not know what to cook. Culinary education, demonstrations and recipe development can address this gap. In Nigeria, locally familiar ingredients such as beans, cowpea, soybean, groundnut and vegetables provide a useful starting point because they do not require consumers to abandon familiar food systems completely. (Lea & Worsley, 2003; Rosenfeld & Burrow, 2017).

Food Technology and Product Innovation

Plant-based meat analogues may reduce resistance when they provide familiar sensory experiences. The literature suggests that taste and texture remain important to consumers, so product development should not focus only on nutritional composition. Marketing that emphasizes taste, familiarity and innovation may also be more effective than presenting alternatives as morally superior to conventional foods. (Bryant et al., 2019; Hartmann & Siegrist, 2020).

Social and Institutional Influences

Schools, hospitals, workplaces and other institutions can influence what people perceive as normal food. When plant-based options are attractive, convenient and easy to identify, people may be more willing to try them. Institutional food services therefore provide an opportunity to make dietary variety routine rather than exceptional. (Sparkman & Walton, 2017; Verain et al., 2020). Policy can reinforce these changes through nutrition guidelines, sustainability labelling, support for local plant-protein production and other measures that improve the food environment. Such measures should, however, consider affordability and cultural acceptability. A policy that promotes foods most consumers cannot afford is unlikely to produce equitable change. (Stoll-Kleemann & Schmidt, 2017; Willett et al., 2019).

CONCEPTUAL FRAMEWORK

The reviewed evidence supports a framework in which meat attachment operates through four closely related dimensions—hedonism, affinity, entitlement and dependence. These dimensions interact with psychological influences such as attitudes, beliefs, identity and perceived behavioural control. Social influences include family, peers, gender norms, status and cultural identity, while structural influences include availability, affordability, accessibility and marketing. Together, these factors shape willingness or intention to reduce meat consumption or adopt a more plant-based pattern. Health awareness, environmental concern, culinary confidence and supportive social environments may strengthen the likelihood of change. (Graça et al., 2015; Ajzen, 1991; Tajfel & Turner, 1986; Stoll-Kleemann & Schmidt, 2017).

Figure 1. Conceptual framework linking meat attachment to plant-based dietary adoption

Level	Key factors	Relationship suggested by the literature
Meat attachment	Hedonism; affinity; entitlement; dependence	Higher attachment is generally associated with lower willingness to change.

Psychological	Attitudes; beliefs; identity; perceived behavioural control	Positive attitudes and self-efficacy may support change.
Social	Family; peers; gender norms; status; cultural identity	Supportive norms may facilitate adoption; restrictive norms may hinder it.
Structural	Availability; affordability; accessibility; marketing	A supportive food environment can make change easier.
Facilitators	Health; environmental concern; culinary confidence; practical skills	These factors may strengthen intention and sustained adoption.
Outcome	Reduced meat intake / more plant-based dietary pattern	Dietary transition.

RESULTS OF THE REVIEW

The review reports 68 peer-reviewed studies as meeting the stated criteria. The evidence came from North America, Europe, Asia, Africa and multi-regional studies. The source manuscript reports regional shares of 32% for North America, 40% for Europe, 15% for Asia and 5% for Africa. These figures account for 92% of the reported evidence base; the remaining 8% is not allocated in the source, so no further regional distribution is inferred here. (Page et al., 2021).

Evidence-base characteristic	Reported value	Interpretation
Included studies	68	Reported in the supplied manuscript.
Main designs	Mostly cross-sectional surveys and experimental interventions	Smaller number of qualitative and ethnographic studies.
North America	32%	Regional share reported in the source.
Europe	40%	Regional share reported in the source.
Asia	15%	Regional share reported in the source.
Africa	5%	Regional share reported in the source.
Unspecified remainder	8%	Not allocated in the source.

Across the studies, a consistent pattern was visible: meat remains closely tied to personal and cultural identity, which can make dietary change difficult. At the same time, awareness of health and sustainability appears to be changing attitudes, particularly among younger and more educated groups. The evidence should nevertheless be interpreted carefully because the geographical distribution of studies is uneven and much of the research is cross-sectional. (Graça et al., 2015; Morris et al., 2021; Mwangi et al., 2021).

Thematic Synthesis

Psychological and Emotional Dimensions

The studies reviewed consistently point to sensory pleasure and emotional familiarity as important parts of meat attachment. Research using the Meat Attachment Questionnaire suggests that many consumers associate meat with enjoyment and comfort. The review also reports findings from a comparative study across 12 European countries in which almost 70% of respondents regarded meals without meat as incomplete. Such findings illustrate how strongly expectations about a “proper meal” can influence dietary choices. (Graça et al., 2015; Hartmann & Siegrist, 2020).

Childhood experiences and family eating patterns may strengthen these associations. Positive memories become linked to particular foods, making them difficult to replace later in life. There is some evidence that culinary education and improved preparation of plant-based foods can help. When people are offered plant-based meals that are well prepared and appealing, taste becomes less of an obstacle. (Ong et al., 2023; Rosenfeld & Burrow, 2017).

Moral Justifications and Cognitive Dissonance

The literature also describes the ways habitual meat eaters may rationalize their choices. Statements that humans are naturally carnivorous or that meat is necessary for good health can help reconcile meat consumption with concern for animal welfare. For people with strong meat attachment, direct ethical confrontation may therefore increase defensiveness. A less confrontational approach that connects dietary change to existing personal values may be more productive. (Piazza et al., 2015; Bastian & Loughnan, 2017; Dowsett et al., 2018).

Cultural and Social Identity

Meat frequently functions as a marker of celebration and prosperity. This is particularly relevant to settings where serving meat communicates hospitality or generosity. In some Nigerian contexts, ceremonies, weddings and communal gatherings reinforce these associations. Plant-based advocacy that ignores this social meaning risks presenting dietary change as a rejection of tradition. (Mwangi et al., 2021; Oniang'o & Komokoti, 2021).

A more constructive strategy is to work with familiar foods. Rather than treating plant-based eating as a foreign lifestyle, interventions can highlight existing dishes built around legumes, vegetables, grains, nuts and other plant foods. This approach preserves cultural familiarity while allowing gradual change. (Graça et al., 2019; Lea & Worsley, 2003).

Gender and Social Norms

Gender differences have also been examined in relation to meat attachment. Several studies report stronger identification with meat among men, particularly where meat is connected with strength, virility or dominance. Research suggests that changing the way plant-based foods are framed—for example, emphasizing fitness and performance—may make alternatives more acceptable to groups who might otherwise associate them with weakness or restriction. (Rothgerber, 2013; Ruby & Heine, 2012; Rozin et al., 2012).

Attitudes, Norms and Perceived Control

The Theory of Planned Behavior findings reinforce the importance of attitudes, social support and perceived control. People are more likely to consider dietary change when they believe plant-based meals can be enjoyable, when people around them are supportive, and when they feel able to prepare appropriate meals. Cooking confidence and knowledge about plant protein therefore deserve as much attention as motivational messages. (Ajzen, 1991; Tobler et al., 2011).

Health, Environment and Economic Access

Health and environmental concerns can encourage dietary change, but the effect is not automatic. People may be concerned about climate change and still struggle to reduce meat consumption. Access matters. In Nigeria and other developing settings, commercially processed meat substitutes may be uncommon or expensive, while inexpensive plant proteins such as soybean, cowpea and groundnut may receive less attention than they deserve. This makes local food production and practical nutrition education especially relevant. (Willett et al., 2019; Stoll-Kleemann & Schmidt, 2017; Obi Olor et al., 2024).

Gradual Change and Food Environment

The reviewed studies suggest that gradual dietary reduction can be easier to maintain than abrupt and restrictive approaches. Meatless days and flexitarian patterns allow consumers to experiment without feeling that an established identity has been completely rejected. Food environments can support these changes by making plant-based meals visible, affordable and convenient in schools, hospitals, workplaces and other institutions. (Graça et al., 2019; Verain et al., 2020; Sparkman & Walton, 2017).

Technology and product development may also contribute. Where plant-based alternatives closely resemble familiar foods in taste and texture, consumers may be more willing to try them. The strongest interventions are therefore unlikely to rely on one strategy alone. Behavioural support, culinary skills, social acceptance, product quality and food access need to work together. (Bryant et al., 2019).

Synthesis and Interpretation

Taken as a whole, the evidence suggests that meat attachment is better understood as a psychosocial phenomenon than as a simple preference for taste. People may enjoy meat, but they may also use it to express belonging, celebrate important occasions, maintain family routines or signal status. These layers of meaning help explain why knowledge about nutrition and sustainability does not always lead to sustained change. (Graça et al., 2015; Morris et al., 2021; Mwangi et al., 2021).

For this reason, interventions should move beyond information-only approaches. A useful programme might combine nutrition education with cooking demonstrations, affordable recipes, supportive peer groups and gradual reduction targets. In Nigeria and similar settings, culturally familiar plant foods should be central to such programmes. The goal is not necessarily to replace every traditional dish, but to widen the range of satisfying meals available to families. (Rosenfeld & Burrow, 2017; Lea & Worsley, 2003).

The evidence also points to the value of interdisciplinary work. Nutritionists can address dietary adequacy, behavioural scientists can examine motivation and habit, anthropologists can help interpret cultural meanings, and policy makers can address affordability and food availability. Meat reduction is therefore not a problem that belongs to one discipline alone. (Ajzen, 1991; Tajfel & Turner, 1986).

Limitations

Several limitations should be considered when interpreting this review. First, the supplied manuscript does not preserve complete database-level search outputs, record counts, full-text exclusion logs or study-level quality appraisal scores. The review therefore does not claim full PRISMA 2020 systematic-review compliance. Second, the evidence base is geographically uneven, with relatively limited representation from Africa and especially Nigeria. Third, a substantial proportion of the literature is cross-sectional, limiting conclusions about causality and long-term behaviour. Fourth, studies do not always use identical definitions of meat reduction, plant-based diets or meat attachment, which introduces some heterogeneity. Finally, the associations identified in the literature should not be interpreted as proof that meat attachment alone causes dietary resistance.

CONCLUSION

This review shows that attachment to meat is closely connected with the way people experience food, relationships and identity. Meat can represent pleasure and comfort, but it can also symbolize family tradition, celebration, prosperity and social belonging. These meanings help explain why some people remain reluctant to reduce meat consumption even when they recognize potential health or environmental benefits of plant-based eating. (Graça et al., 2015; Mwangi et al., 2021).

Across the reviewed literature, stronger meat attachment is generally associated with lower willingness to change. Emotional dependence, habit, social expectations and beliefs about nutritional necessity can reinforce this resistance. On the other hand, health awareness, environmental concern, cooking confidence, supportive social environments and positive experiences with plant-based foods can encourage change. (Graça et al., 2015; Piazza et al., 2015).

The practical lesson is straightforward: dietary transition is more likely to be accepted when it does not require people to abandon their identity or familiar food culture overnight. Gradual reduction, appealing recipes, accessible ingredients and culturally appropriate communication provide a more realistic route than messages based solely on restriction or guilt. For Nigeria, this means paying greater attention to affordable local plant

proteins and familiar vegetable- and legume-based dishes while also building the evidence base through local research. (Graça et al., 2019; Verain et al., 2020).

RECOMMENDATIONS

Integrate behavioural science into nutrition programmes. Nutrition education should consider attitudes, habits, identity and social norms rather than treating food choice as an information problem alone. The Theory of Planned Behavior and Social Identity Theory provide useful starting points.

Strengthen culinary education and sensory appeal. Cooking demonstrations and practical programmes should show people how to prepare affordable plant-centred meals that are enjoyable, familiar and nutritionally appropriate.

Adapt messages to local cultures. Public-health communication should respect food traditions and build on familiar Nigerian ingredients such as legumes, nuts, vegetables and traditional stews rather than presenting plant-based eating as culturally foreign.

Encourage gradual change. Meatless days, flexitarian patterns and other incremental approaches can provide manageable entry points for people who are not ready for complete abstinence.

Improve access and affordability. Government and private-sector initiatives should support local production and markets for plant proteins and improve access to affordable alternatives.

Use institutions to normalize choice. Schools, hospitals and workplaces can make plant-based meals visible, attractive and convenient as part of normal food provision.

Promote interdisciplinary research. Nutritionists, psychologists, anthropologists, economists and policy researchers should work together to study the culturally specific drivers of meat attachment and dietary change.

Future Research Directions

Future research should pay closer attention to the relationship between meat attachment and gender identity in non-Western settings. Longitudinal studies are needed to determine whether interventions that increase willingness actually produce sustained changes in eating behaviour. More work is also required on how emerging plant-based technologies are perceived within different cultural food systems. Finally, researchers should examine the economic consequences of dietary transitions for low-income households so that sustainability policies do not unintentionally widen food inequalities. (Rothgerber, 2013; Thomas et al., 2021; Morris et al., 2021).

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