

THE EFFECT OF TELEVISION SHOWS ON DAILY NUTRITION PLANNING

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Abstract:

At the present, nutrition has become one of the most important subjects people are attentive to in their lives. With the popularity and prevalence of communication instruments and forms, new diets have begun to pique many people's interest. Specialists who use these media to reach their audience play an important role in shaping viewer dietary habits. Individuals model their diets by food trends and recommendations of specialists both in Turkey and across the world. This study aimed to examine how celebrity chefs influenced the nutrition planning of their viewers. In the study, respondents completed a 25-item online questionnaire aimed at investigating viewing and following status for television cooking shows and celebrity chefs, as well as, the impact of celebrity chefs on their audience's daily nutrition planning. According to the results, 40.6% (n=159) of the respondents reported that celebrity chefs did not provide dietary advice, and celebrity chefs and cooking shows did not have any influence on respondent diets (55.6%, n=218).

Keywords: Diet, nutrition, television, social media, cooking shows

1. INTRODUCTION

Many regions of the world suffer from the “double burden” of malnutrition, where undernutrition and obesity coexist in the same country, community and even household. In comprehensive epidemiological studies conducted in 199 countries in 2008, an estimated 1.46 billion and 502 million adults were found to be overweight (Body mass index (BMI) > 25 kg/m²) and obese (BMI >30 kg/m²), respectively (Finucane et al., 2011; Swinburn et al., 2011; Wang, McPherson, Marsh, Gortmaker, & Brown, 2011). The number of obese 5-19-year-old children and adolescents at 11 million in 1975 has reached 124 million in 2016, which means that approximately 340 million children and adolescents aged 5-19 across the world – almost one in five (18.4%) – are overweight or obese (World Health Statistics, 2018:18). Statistics and research results regarding the global rise of overweight and obesity have forced many countries to adjust their public health priorities.

At this point, the critical concept of dietary habits gains prominence. There are many factors that influence daily diets and nutritional behavior (Lake & Townshend, 2006; Papas et al., 2007; Story, Kaphingst, Robinson-O’Brien & Glanz, 2008). These factors are religion, economic structure, politics, sports, dietary habits and customs and traditions, as well as, television that permeates every instance of social life, defining our perceptions and opinions (Postman, 2004:90). Television requires no literacy or user skills, caters to an audience from all ages, is present in almost every household, and maintains its influence albeit the growing prevalence of internet use. Consequently, television broadcasts have a tremendous power in shaping food and nutrition knowledge of consumers (Aksaçlıoğlu & Yılmaz, 2007). Correspondingly, there is a rapid increase, both in quantity and quality, in cooking shows and other food- and nutrition-related shows broadcast on television throughout the world (De Solier, 2005; Ketchum, 2005).

With the significant rise in the number of television cooking shows, there has also been an increase in the diversity of culinary shows. This diversity extends from more traditional cooking shows that focus on each process from preparation to service of food and drinks to competition shows, as well as, programs with varied formats which visit different cities and countries to present local foods with a focus on entertainment and curiosity rather than cooking. The content diversity of these cooking shows transforms in accordance with contemporary popular program formats and audience desires and demands. Even television channels that broadcast only culinary shows were launched to meet audience demand (e.g. 24Kitchen).

Celebrity chefs who host these cooking shows use high energy foods, such as margarine, cream and red meat with high fat content, to enhance taste. They provide nutrition advice and daily diets. Sometimes their advice or recipes are presented as being healthy, giving the impression to the viewers that all the meals cooked by television chefs are healthy (Howard, Adams & White, 2012). Two studies on the recipes of British celebrity chefs yielded a general tendency to use saturated fat, sugar and salt, as well as, a general contradiction with healthy dietary practices (Howard et al., 2012; Jones et al., 2013). Cooking shows may influence the

dietary habits and choices of viewers, given their prevalence on television and the popularity of celebrity chefs. This study aimed to investigate opinions, attitudes and beliefs on popular cooking shows and celebrity chefs, as well as, whether watching these TV shows influenced dietary habits and choices.

2. METHODS

This quantitative study employed a modified version of the questionnaire developed by Villani, Egan, Keogh and Clifton (2015) for data collection, which was carried out between October 15 and November 15, 2018. Prior to the study, the questionnaire form was translated into Turkish by an English language specialist and then reviewed by a Turkish language specialist. A pilot study was conducted with 120 respondents via social media to assess the reliability of the questions in the questionnaire. After the pilot study, 4 demographic questions were removed from the questionnaire and 3 new items on respondent behaviors, attitudes, beliefs and perceptions regarding nutritional and dietary advice provided by celebrity chefs were added by the researchers. The final questionnaire form comprised a total of 25 items. The Cronbach's Alpha ($\alpha=0.707$) computed to test the reliability of the pilot study data demonstrated the applicability of the questionnaire form.

A time limit for completing the online questionnaire was not imposed on the respondents, measures were implemented to avoid repeat participation, and respondents were allowed to move on to subsequent questions without restriction.

The study population was adult television viewers (≥ 18 years of age). The study sample comprised volunteers who completed the questionnaire form between October 15 and November 15, 2018, when the questionnaire was open to access. The researchers reached the respondents through social networking sites and e-mail. The questionnaire was automatically closed to further participation after reaching 384 respondents designated via a population versus sample determination table. During this open-access period, 392 respondents participated in the survey. After importing the study data into the statistics software, a Chi-square test was performed with respect to educational status and gender to compute frequencies and percentages. The arithmetic mean was used in age, height and weight analyses.

3. RESULTS

The study results are presented below:

Table 1. Respondent Demographic Characteristics

| Gender | n | % |
|---------------------------|----------|----------|
| Female | 244 | 62.2 |
| Male | 148 | 37.8 |
| Educational Status | | |
| Primary School | 3 | .8 |

| | | |
|-------------------------|-----|------|
| High School | 51 | 13.0 |
| Associate/Undergraduate | 198 | 50.5 |
| Postgraduate | 140 | 35.7 |
| Age Range | | |
| 18-24 | 89 | 22.7 |
| 25-31 | 86 | 22 |
| 32-38 | 75 | 19.1 |
| 39-45 | 54 | 13.8 |
| 46-52 | 54 | 13.8 |
| 53-59+ | 34 | 8.6 |

Table 1 shows respondent demographic characteristics. The percentages of female and male respondents were 62.2% and 37.8%, respectively. 50.5% of the respondents had associate or undergraduate degrees, while 22.7% were aged 18-24.

Table 2.Reasons for Watching TV Cooking Shows by Gender (n=392)

| | Female | | Male | | Total | |
|--|--------|------|------|------|-------|------|
| | n | % | n | % | n | % |
| I never watch | 44 | 18.0 | 49 | 33.1 | 93 | 23.7 |
| Gain more knowledge about recipes and cooking methods | 114 | 46.7 | 45 | 30.4 | 159 | 40.6 |
| Entertainment | 33 | 13.5 | 35 | 23.6 | 68 | 17.3 |
| Interest in a particular celebrity chef | 7 | 2.9 | 2 | 1.4 | 9 | 2.3 |
| Relaxation | 7 | 2.9 | 3 | 2.0 | 10 | 2.6 |
| It's the only thing to watch on television at the time | 39 | 16.0 | 14 | 9.5 | 53 | 13.5 |

$X^2=24.800$, $p= 0.000$

The most salient reason why respondents watched television cooking shows was to learn about recipes and cooking methods (40.1%), while the least salient reason was interest in celebrity chefs (2.3%). Reasons for watching TV cooking shows displayed a statistically significant difference by gender. It is a striking result that the least reported reason for watching TV cooking shows was interest in celebrity chefs although TV cooking shows are considered to be an element for raising public interest in gastronomic culture and chefs are frequently preferred as hosts by television producers.

Table 3. Preferred Media for Following Celebrity Chefs by Educational Status (n=392)

| | Educational Status | | | | | | | | | |
|-----------|--------------------|------|-------------|------|---------------|------|--------------|------|-------|------|
| | Primary School | | High School | | Undergraduate | | Postgraduate | | Total | |
| | n | % | n | % | n | % | n | % | n | % |
| Instagram | - | - | 17 | 33.3 | 107 | 54.0 | 50 | 35.7 | 174 | 44.4 |
| Twitter | - | - | 1 | 2.0 | 1 | 0.5 | 2 | 1.4 | 4 | 1.0 |
| TV | 2 | 66.7 | 26 | 51.0 | 55 | 27.8 | 43 | 30.7 | 126 | 32.1 |
| Facebook | - | - | - | - | 7 | 3.5 | 11 | 7.9 | 18 | 4.6 |

| | | | | | | | | | | |
|---------|---|------|---|------|----|------|----|------|----|------|
| YouTube | 1 | 33.3 | 7 | 13.7 | 28 | 14.1 | 34 | 24.3 | 70 | 17.9 |
|---------|---|------|---|------|----|------|----|------|----|------|

$X^2=30.359, p= 0.000$

Table 3 reveals significant differences in the media respondents preferred for following celebrity chefs by educational status ($p<0.05$). Instagram (44.4%) and television (32.1%) were the most preferred media, and primary school graduate respondents reported very low social media usage. The higher preference of social media by respondents with higher education was another salient result.

Table 4 shows statistically significant differences in the reasons respondents reported for cooking television show recipes by gender ($p<0.001$). Both women and men reported using television show recipes because they enjoyed cooking.

The majority of the respondents (57.4%) reported that the nutritional quality of television show recipes varied by recipe type, while male respondents expressed their unsureness about the recipes (39.2%). The results indicated statistically significant differences in respondent opinions on television show recipes by gender ($p<0.00$).

Table 4.Reasons for Cooking and Opinions about TV Show Recipes by Gender (n=392)

| | Female | | Male | | X^2 |
|---|--------|------|------|------|--------|
| | n | % | n | % | |
| To challenge my cooking skills | 20 | 8.2 | 7 | 4.7 | 23.471 |
| Visually appealing | 10 | 4.1 | 9 | 6.1 | |
| I am attracted to recipes that are recommended by certain celebrity chefs | 27 | 11.1 | 13 | 8.8 | |
| Used for special occasions such as birthdays, social gatherings, Christmas, Easter etc. | 23 | 9.4 | 9 | 6.1 | |
| They are easy to make | 21 | 8.6 | 2 | 1.4 | |
| General enjoyment of cooking | 57 | 23.4 | 25 | 16.9 | |
| I have never used a recipe from a reality television cooking show | 86 | 35.2 | 83 | 56.1 | |
| Varies depending on the type of recipe | 140 | 57.4 | 53 | 35.8 | |
| Varies depending on the type of cooking show | 27 | 11.1 | 14 | 9.5 | |
| Varies depending on the type of celebrity chef | 10 | 4.1 | 6 | 4.1 | |
| Most recipes are generally nutritious and healthy | 6 | 2.5 | 11 | 7.4 | 24.938 |
| Most recipes generally unhealthy and use too much fat, sugar and salt | 6 | 2.5 | 6 | 4.1 | |
| Unsure | 55 | 22.5 | 58 | 39.2 | |

($p<0.001$)

Table 5. Trial Status of Respondents for TV Show Recipes and Types of Recipes Respondents Tried (n=392)

| | n | % |
|-------------|-----|------|
| Tried | 215 | 54.8 |
| Did not try | 177 | 45.2 |

| | | | |
|---|-------------|-----|------|
| Type of TV show recipes respondents tried to cook | Breakfast | 4 | 1.0 |
| | Light meals | 20 | 5.1 |
| | Main meals | 98 | 25.0 |
| | Desserts | 93 | 23.7 |
| | Never tried | 177 | 45.2 |

The percentage of the respondents who reported using and trying television show recipes was 54.8%. TV show recipes most commonly used were recipes for main meals (25%) and desserts (23.7%), which indicates a tendency to try cooking different foods for main meals and desserts, as well as, a greater interest in these dishes. 49.2% of the respondents stated that the nutritional quality of television show recipes varied by recipe.

Table 6. Respondent Opinions on Nutritional Advice and Dietary Knowledge of Celebrity Chefs (n=392)

| | n | % |
|--|-----|------|
| Promote an increase in fruit and vegetable intake | 65 | 17.7 |
| Promote an increase in wholegrains | 28 | 8.2 |
| Promote a gluten-free diet | 20 | 6.2 |
| Promote a dairy free diet | 1 | 1.3 |
| Promote a greater intake of protein | 22 | 6.7 |
| Promote using less salt or using foods lower in salt | 24 | 7.2 |
| Promote fat sources including olive oil, nuts, avocado and seeds | 28 | 8.2 |
| Most of the dietary advice that is provided appears radical and unscientific | 7 | 2.8 |
| Celebrity chefs never provide nutritional or dietary advice on their shows | 159 | 41.7 |

Table 6 presents respondent opinions on advice, dietary information and dietary rules provided by celebrity chefs, and whether celebrity chefs are adequately equipped to offer nutritional advice. 41.7% of the respondents reported that celebrity chefs never offered nutritional or dietary advice on their shows.

Table 7. Respondent Opinions on the Nutritional Knowledge of Celebrity Chefs and the Influence of Celebrity Chefs and Cooking Shows on Daily Nutrition Planning (n=392)

| | | n | % |
|---|---|-----|------|
| Nutritional Knowledge of Celebrity Chefs | Qualified to give advice | 117 | 29.8 |
| | Unqualified to give advice | 83 | 21.2 |
| | Unsure | 192 | 49.0 |
| Influence of Celebrity Chefs and Cooking Shows on Daily Nutrition Planning etc. | Greater awareness about the nutritional quality of food | 69 | 17.6 |
| | They have had no impact on my diet | 218 | 55.6 |
| | Encouraged a greater intake of fruit and vegetables | 26 | 6.6 |
| | Encouraged a greater use of salt in foods | 18 | 4.6 |
| | Encouraged a greater use of hazelnut oil, corn oil, etc. | 1 | .3 |
| | Encouraged a greater use of animal fats such as butter, suet, | 11 | 2.8 |
| | Encouraged a greater use of olive oil | 30 | 7.7 |
| Encouraged a gluten-free diet | 4 | 1.0 | |

| | | |
|-------------------------------------|----|-----|
| Encouraged a dairy-free diet | 2 | .5 |
| Encouraged a greater intake of fish | 13 | 3.3 |

The percentage of the respondents who were unsure whether celebrity chefs were well-qualified and knowledgeable enough to offer advice on dietary rules or nutrition was 49.0%, which indicates that the respondents were doubtful as to the nutritional knowledge of celebrity chefs. Furthermore, the majority of the respondents (55.6%) reported that advice provided by celebrity chefs had had no impact on their diets.

4. DISCUSSION AND RECOMMENDATIONS

The rapid increase in the popularity and efficiency of communication has facilitated access to information. This, in turn, has affected culinary culture, an important part of human life. Quality and reliability of information provided by so-called specialists and experts with questionable competence and knowledge through the media have become a contemporary debate and inquiry. Therefore, this study was aimed at examining the influence of television cooking shows and celebrity chefs on the daily nutrition planning of their viewers.

The study results had both similarities and differences with other studies in the literature on the subject. A study conducted to investigate the attitudes and beliefs of Australian adults regarding popular TV cooking programs and celebrity chefs indicated that watching these programs did not influence dietary choice and behavior. The study also revealed that the respondents did not consider statements by celebrity chefs as dietary advice (Villani et al., 2015), which corresponds to the results of the present study.

The study results showed that the public watched cooking programs and celebrity chefs to learn more about recipes and cooking methods. Another study (n=238) by Lane and Fisher (2015) indicated learning new cooking techniques as a strong motivation for watching cooking shows. In their study (n= 207), Villani et al. (2015) highlighted that viewers watched television cooking shows and celebrity chefs for entertainment. The discrepancy in study results may be attributed to the difference in content and concept of television cooking shows broadcast in Turkey and abroad, or respondent demographics. Celebrity chefs and high-quality cooking shows can help viewers to learn more about food preparation and to improve their basic cooking skills. However, television chefs who host these shows must be adequately knowledgeable about nutrition and refrain from practices and advice that might negatively impact individual and public health.

The respondents reported believing that television chefs mostly gave priority to taste and presentation in their shows, whereas the implementation of correct principles for food preparation is just as important as taste and esthetic appeal. Food preparation with minimal loss of nutrition would contribute to both nutritional quality and taste. Therefore, it is essential to use correct preparation and cooking principles in television shows by adopting a scientific approach.

In the study, 55.6% of the respondents reported their routine dietary intake was not influenced by cooking shows and celebrity chefs. Similarly, Lane and Fisher (2015) and Caraher et al. (2000) also documented a limited influence of television cooking shows and celebrity chefs on viewers' customary nutritional behaviors. The study results showed that 49% of the respondents were unsure of the qualification of celebrity chefs to provide dietary or nutritional advice. Television chefs use various convenience foods and ingredients for promotional purposes or play a prominent role in marketing campaigns as a sales strategy, both of which might be influential in the development of a mistrustful attitude against them. Prioritizing nutritional quality in recipes by producing TV shows where chefs are accompanied by nutritionists would contribute to preventing nutrition-related diseases and raising healthy individuals.

Inadequate food preparation knowledge and skills, as well as, rising interest in convenience foods and consumption of fast foods are considered to be important factors in the increasing prevalence of nutritional problems and obesity (Engler-Stringer, 2010, Lichtenstein and Ludwig, 2010, Swinburn et al., 2011, van der Horst et al., 2011). Although, in the past, students learned about healthy nutrition and basic food preparation and cooking techniques in the "Vocational Training" course that featured in the basic education curriculum, today such courses have limited or no coverage in basic education other than vocational training curricula. Inclusion of courses on nutrition and food preparation in the curriculum would not just promote traditional food preparation knowledge and skills but also facilitate acquiring healthy dietary habits and passing on culinary culture to future generations.

Systematic efforts, with a focus on healthy nutrition, by celebrity chefs who provide nutritional advice through their cooking shows and social media can contribute to the acquisition of a healthier diet among their audience. However, it is imperative for celebrity chefs to have an adequate and up-to-date knowledge of healthy nutrition.

Advice celebrity chefs provide on cooking shows that reach the public most efficiently can contribute to public health in Turkey. Cooking shows and celebrity chefs can also contribute to the promotion of gastronomic culture. However, the importance of organized and systematic efforts for positive contribution by celebrity chefs must not be overlooked.

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