

Original Paper

Internet as a Source of Long-Term and Real-Time Professional, Psychological, and Nutritional Treatment: A Qualitative Case Study Among Former Israeli Soviet Union Immigrants

Anat Gesser-Edelsburg^{1*}, PhD; Svetlana Shalayeva^{2*}, BSc, MAN, RD

¹University of Haifa Health and Risk Communication Research Center, School of Public Health, University of Haifa, Haifa, Israel

²School of Public Health, University of Haifa, Haifa, Israel

* all authors contributed equally

Corresponding Author:

Anat Gesser-Edelsburg, PhD

University of Haifa Health and Risk Communication Research Center

School of Public Health

University of Haifa

199 Aba Khoushy Ave. Mount Carmel

Haifa, 3498838

Israel

Phone: 972 544243530

Fax: 972 36322143

Email: ageser@univ.haifa.ac.il

Abstract

Background: The Internet is considered to be an effective source of health information and consultation for immigrants. Nutritional interventions for immigrants have become increasingly common over the past few decades. However, each population of immigrants has specific needs. Understanding the factors influencing the success of nutrition programs among immigrants requires an examination of their attitudes and perceptions, as well as their cultural values.

Objective: The purpose of this study was to examine perceptions of the Internet as a tool for long-term and “real-time” professional, psychological, and nutritional treatment for immigrants from the former Soviet Union who immigrated to Israel (IIFSU) from 1990 to 2012.

Methods: A sample of nutrition forum users (n=18) was interviewed and comments of 80 users were analyzed qualitatively in accordance with the grounded theory principles.

Results: The results show that IIFSU perceive the Internet as a platform for long-term and “real-time” dietary treatment and not just as an informative tool. IIFSU report benefits of online psychological support with professional dietary treatment. They attribute importance to cultural customization, which helps reduce barriers to intervention.

Conclusions: In light of the results, when formulating nutritional programs, it is essential to have a specific understanding of immigrants’ cultural characteristics and their patterns of Internet use concerning dietary care.

(*J Med Internet Res* 2017;19(2):e33) doi: [10.2196/jmir.7130](https://doi.org/10.2196/jmir.7130)

KEYWORDS

long-term care; real-time systems; online systems, health psychology; nutrition therapy; qualitative research; former Soviet Union immigrants

Introduction

Internet as a Source of Consultation and Support for Immigrants

Personalized treatment with psychological support in nutritional intervention over the Internet increases the effectiveness of

interventions [1,2]. Social media offer a platform for long-term and real-time support with professional consultation, rather than frontal meetings [3-5].

The Internet is considered one of the most effective tools for reducing medical gaps between immigrants and locals [6,7]. It is an important tool for overcoming immigrants’ feelings of

estrangement and language barriers [8]. Research in different countries has shown that, compared with the majority population, immigrants generally have less access to health services and health information, mainly due to language and cultural barriers [9-11]. Subsequently, online health services offered by multicultural professionals serve as a tool for reducing communication barriers, thereby improving the quality and delivery of health services [12].

The use of Internet among immigrants is correlated with online health literacy. However, there are populations of immigrants, like Russian immigrants, who are well educated, but whose health literacy is low, and consequently, their knowledge of health and nutrition is poor [13,14]. This may present a challenge in a new country with a different culture and unfamiliar eating habits. Therefore, it is essential to mentor immigrants while considering their cultural needs.

Internet Intervention Programs and Real-Time Support

Continued use of nutrition interventions by health professionals is associated with successful results among patients [2,15]. Also, real-time support is essential to the success of the intervention [16].

Despite the benefits of the Internet as a platform for dietary treatment including professional and psychological support, few studies have focused on long-term and real-time online nutritional intervention. An interdisciplinary review [2] has shown that most of the studies in the field are randomized controlled trials with a maximum period of 13 months per intervention. Qualitative studies that examined attitudes of participants in nutritional interventions often included semistructured and indepth interviews [17,18] and focus groups [18].

Studies that were conducted among immigrants involved school children, adolescents, and young adults and their families [19]; overweight and obese and sick adults [20]; older adults [17]; pregnant women [21]; or males and females [22]. Some of the studies were conducted on bilingual health assistants [21,22]. Nearly all the studies considered first-generation immigrants and were small scale.

These interventions usually included a predefined plan prepared by the authors [23-25]. The participants did not always have the opportunity to ask questions or to obtain information about personal issues in real time. Long-term online nutritional treatment for Russian immigrant populations has not been studied. This study examines the use of Internet as a tool for long-term dietary counseling and psychological support for immigrants from the former Soviet Union in accordance with their cultural needs.

Characteristics of Russian Immigrants in Israel

IIFSU tend to have advanced degrees [26], but this is not always reflected in health literacy. Despite their high level of education, their nutritional knowledge and dietary intake are poor.

After immigration, IIFSU often see themselves as belonging to both the Russian and Israeli cultures, meaning they have 2 cultural identities [17]. After arriving in Israel, nutrition becomes

more significant to them [13,14]. In Israel, eating habits are different from that in Russia. According to Lissak [27] and Biederman [28], in contrast with Soviet immigrants who arrived in Israel in the 1970s and sought to assimilate into the collective culture, the IIFSU showed a tendency toward acculturation [29] (eg, by opening Russian supermarkets, theaters, and bookstores). When immigrants rely on their originary ethnic group that speaks their language and abide by its customs and norms, including eating habits, such behavior increases their sense of security and facilitates gradual entry into the broader society [30-33]. Ben-Sira [34] argues that the IIFSU tend to maintain a diet high in fat and cholesterol based on eating habits from their country of origin. Despite being aware that such a diet can lead to obesity and associated health risks, only 40% of the IIFSU tend to choose healthy food. These eating habits of diets based mostly on bread and processed meats, along with other unhealthy lifestyles such as heavy smoking, high alcohol intake, and infrequent doctor visits for preventative care are all part of the life history and health experiences prior to the dissolution of the Soviet Union [35-40]. The first Israeli National Health and Nutrition Survey [41] showed that obesity was more prevalent among Soviet immigrants who arrived in the 1990s than among other ethnic groups in Israel. This study examines attitudes and perceptions toward the Internet as a tool for long-term personalized nutritional treatment and support for IIFSU. In this study, the nutrition counseling was provided by professional certified nutritionists whose public record of their credentials was presented either on a website, on their forum, or on a business webpage.

Objectives

The objective of this study was to examine perceptions and attitudes about the use of Internet as a tool for dietary interventions among immigrants from the IIFSU. Specific objectives were (1) to examine the use of Internet as a source of long-term and real-time dietary treatment; (2) to examine benefits of online professional dietary treatment with psychological support among immigrants; and (3) to examine how the cultural customization helps reduce resistance and barriers to compliance with dietary treatment.

Methods

Study Design and Analysis

The study combined semistructured, indepth interviews, and comments made by Russian forum users on social networks (Facebook, odnoklassniki, vkontakte).

Data Collection

All interviewees provided information about background variables including age, education, marital status and employment, country of origin, and year of immigration. Questions pertaining to study objectives covered the following issues: Internet as a source of information for health issues, Internet use by IIFSU, centrality in their lives, and lack of adherence in general and regarding nutritional care. The protocol included questions on interviewees' perceptions on nutritional issues, about the Internet as a source of knowledge, and their experiences of nutritional therapy interventions via the Internet;

their barriers and dilemmas concerning nutritional therapy, influenced by cultural characteristics, online health literacy, and acclimatization in the country. Participants were asked to compare face-to-face and Internet-based nutritional therapy.

Summary of the Recruitment Population Study

Different subtypes of the IIFSU Internet users were selected: diverse ages, gender, socioeconomic status, and number of years in Israel (Table 1).

Recruitment was carried out through an open forum for nutritional counseling on social networks. All users received

nutritional consultation and long-term treatment. Some were followed up from 1 month to several years. Eighteen indepth face-to-face interviews (between 40 and 60 min) were conducted at a time and place convenient to interviewees. Interviews were recorded and transcribed. Eighty users' comments from forums were analyzed using content analysis.

IIFSU, men and women aged 24-58 years, who immigrated to Israel from 1990 to 2012, most (14 out of 18) were found to hold BA degrees or higher and their socioeconomic statuses vary.

Table 1. Demographic data.

Interviewee	Gender	Age in years	Employment	Year of immigration	Years living in Israel	Age of immigration	Education
1	M	33	Hi-tech marketing manager	1993	22	12	BA
2	M	29	Computer science student	1999	16	14	BA student
3	M	40	Hi-tech engineer	1994	21	20	BA, MA student
4	F	25	Bookkeeper	1998	17	9	Vocational training
5	F	24	Dental assistant	2000	15	9	Vocational training
6	F	30	Hi-tech programmer	1991	24	6	BA
7	F	27	Social worker	1992	23	5	BA
8	F	53	Musician	1997	18	35	BA
9	F	40	Photographer	1998	17	24	Vocational training
10	F	31	Housewife	2012	3	29	BA
11	F	47	Saleswoman	2002	13	37	BA
12	M	56	Sports store manager	1990	25	31	MA
13	M	26	Construction worker	2000	15	11	High school
14	F	25	Architecture student	2003	12	13	BA student
15	M	58	Unemployed	1990	25	33	BA
16	F	55	Nurse	1998	17	38	BA
17	F	52	Factory worker	1991	24	28	BA
18	M	38	Lawyer	1993	22	16	BA

Data Analysis

The audiotape was transcribed as soon as possible after each interview. Transcripts were then checked against the recordings to ensure accuracy. We conducted a content analysis of additional 80 users' comments on nutritional forums. The analysis was conducted throughout the data collection process and the focus was on issues related to the research questions [42] and on themes that arose in the personal interviews.

The themes of the generic subjects that appeared in the content analyses of the users' comments and the semistructured protocols were analyzed. Interviews and users' comments were analyzed individually to identify key themes and subthemes. Data aggregation indicated a saturation point because there were repetitions of themes in the interviews and there was no need for more interviews [43]. The findings presented in the study are an integration of the forum users' comments and the issues that emerged during the interviews.

Validity and Reliability

We used the triangulation method including diverse data sources (tools). This approach uses cross-referencing data and validation. Use of multiple sources allows improved understanding, control, validity, and reliability of the findings. The study included personal interviews (semistructured protocol) and analysis of users' comments from Internet forums. For validation, the results were compared with findings in the literature. The comparison showed similar conclusions. Consequently, the study received a basis for its validity [44]. In addition, recognition of the limitations helped improve the quality and validity of the study [45]. At each stage, the researcher compared and brought into line the participants' views and the construction of those views by the researchers. To reinforce study reliability and credibility, different subtypes IIFSU were selected.

Ethical Considerations

Application was submitted to the Faculty of Social Welfare and Health Sciences Ethics Committee for research with human subjects at Haifa University and full ethical approval (no. 106/14) was granted.

Results

Main Subthemes

Over the course of the research, common themes arose for different subpopulations of IIFSU, along with a distinct variance between those researched. We divided the results into 3 subthemes that are as follows: (1) receiving long-term treatment and real-time dietary consultation; (2) professional dietary treatment with psychological support; and (3) cultural tailoring to the needs of IIFSU.

Receiving Long-Term Treatment and Real-Time Dietary Consultation

Most interviewees and most users' comments indicate that the Internet offers an opportunity to receive long-lasting dietary treatment. Also, there is the option of real-time consultation from professionals. Nutrition forums serve as a therapeutic tool as discussed in the following.

Long-Term Therapist-Patient-Relationship Through Online Counseling

In Israel, professional certified independent nutritionists provide online nutrition counseling. They promote their online services mainly through social media, and provide them through online video chat, Facebook, or their forum. Online nutrition counseling is not regulated by law. Eleven of 18 interviewees (7 women, 4 men) sought long-term dietary counseling, an unlimited number of consultations like in other online programs or in the traditional clinics. Patients state their need for customized therapeutic framework for effective changing of behavioral habits. It is a long-term process and this is why they need long-term follow-up and encouragement.

With the professional counseling I receive on the Internet, I feel they can mentor me and help me to change my eating habits step by step. This way I achieve my goals. It helps me to learn about new culture and food. This difficult process of changing habits takes time...So it is important to me to have follow-up and discipline, since I progress better like this... It is easier for me to deal with the problems with a therapist than alone... [M, 29]

Real-Time Connection

Receiving counseling when difficulties or questions arise, which are not predetermined enables the patient to follow through on the therapist's recommendations. Twelve of 18 interviewees (8 women and 4 men, 25-35 years, with no difference in education or duration of residence in Israel), positively noted the option of a real-time relationship with their consultant via the Internet:

I keep having questions all the time, which I want answers to, and through the Web I can ask those questions immediately in real time. I want to ask the

dietitian's opinion in real time, go over my experiences together, exchange experiences, write down what I'm going through,...I think that doing this in a clinical setting is problematic, since there is an accessibility issue and you have to reschedule appointments. Online I can address professionals any time and talk with them, which is impossible to do at the clinic. [M, 33]

Professional Dietary Treatment With Psychological Support

Internet as a Place for Consulting Professionals

Thirteen of 18 interviewees (men and women, 24-58 years) regard the Internet as a venue for receiving dietary treatment and consultation, instead of frontal consultations with dietitians. Moreover, the saturation of dietary information on the Web is overwhelming and requires guidance. Russian users reveal that they only trust professionals. Users' comments revealed that they sought an authoritative source to assist in decision making. The study participants reported that they were looking for guidance from a licensed professional. Before they began the counseling, they reported that they checked the counselor's details on Google or that they asked to see professional certification to validate whatever licensing and degrees they claimed to have. According to the participants, a good nutritionist was one with professional training.

I improve my diet based on the professional consultation I get in forums. There are too many information and blogs about nutrition, but not many good professionals. It's critical for me to get a proper consultation which will influence my food intake. [M, 29]

Internet as a Source of Psychological Support During the Treatment

Apart from the professional consultation, patients express a need for encouragement and motivation. Also mentoring and coaching helps change habits. Eight of 11 women stated they had used the Internet in situations of uncertainty. Through the connection which enables sharing difficulties and getting psychological support, the experience of treatment becomes more effective. The patient senses the therapists' support, when he needs their guidance, as one of the interviewees notes this:

To me, changing eating habits is like changing culture. It's changing your roots. It seems almost impossible, because my eating culture is a part of me...but I do it because it is important for me to improve my health, and it's important for me physically. From a psychological standpoint, it is very difficult. It takes a lot of time and professional support who can encourage, explain, and give us the appropriate tools to deal with temptation and pressure. [M, 29]

Cultural Tailoring to the Needs of IIFSU

Being immigrants influences the compliance with dietary treatment for several reasons:

Language

Eleven of 18 interviewees stated that speaking Russian is important in dietary treatment. Those who chose to receive counseling in Russian stressed that it was easier as they conduct their personal lives in Russian. They see themselves as part of a Russian community in Israel.

I prefer someone who speaks Russian, but who lives in Israel, someone like me... So that we will have a better understanding...Although I am fine with Hebrew, it is better speaking with someone who knows your native language to make matters clearer; it makes it easier for me. [F, 27]

Segmentation of the findings regarding language choice for treatment was observed among users from different age groups. Both the younger (aged 20-40) and older (aged 40-56) users noted a preference for counseling in Russian. A difference of opinion was also observed among those who immigrated to Israel as children (ages 2-14), as well as among those who immigrated after age 15, and had been living in Israel between 1 and 10 years. They all shared a common characteristic: patients whose daily routines were in Russian preferred a Russian-speaking therapist. That means the phenomenon has less to do with the age and amount of time since immigrating, and more to do with the role of Russian in their daily lives.

Mentality and Culture During Treatment

Nine of 18 patients expressed the need for a therapist who was also a Russian immigrant. This fostered mutual understanding and a sense of identification. Furthermore, it helps cope with difficulties in a new culture.

I prefer that the therapist be Russian...Not only speaking the language, but also knowing what Russian culture is, what a Russian upbringing is...I think it's the mentality, I mean that they will be someone like me who lives in Israel and knows the Russian mentality. That is why I think that a Russian dietitian understands me better. When I say a Russian lifestyle with a Russian mentality – it is because I speak the Russian language, eat Russian foods and take part in Russian culture and understanding. It's hard to explain, but it's like dating an Israeli. It's fun and nice but we're not on the same wavelength, we don't fully understand each other. [F, 30]

Discussion

Principal Findings

IIFSUs look for professional consultation with psychological support that takes into account their cultural identity. The IIFSUs interviewed tend to be more educated than the general population. This might explain the extensive use of the Internet as an informative and therapeutic instrument. However, these data contradict findings in the literature, in which immigrant populations of disadvantaged groups (elderly, poor, and chronically ill), use the Internet less, and do so less rationally [15,46,47]. All the users in this study stated that the Internet was effective, empowering, and helpful for dietary issues.

Despite their high level of education, a gap in health literacy remains [48]. The population interviewed tends to have unhealthy eating habits, reflecting the eating habits in their native country and the complexities of immigration. The study participants reported on their eating habits to the interviewer. The reports expose eating habits that include a diet high in fat, sweets, and juices, with little consumption of vegetables and water. The Russian interviewees sought dietary support in terms of both health and culture. This is in keeping with the importance placed on “cultural sensitivity” in the literature. Cultural sensitivity entails awareness of cultural similarity and difference, which influence worldviews, values and beliefs, learning processes, and behavior [49]. Differences in culture must therefore be considered at every stage in dietary intervention. This may guarantee the efficacy of the treatment offered to Internet users [50].

According to the literature, publishing dietary and medical content in the immigrants' language and making it culturally appropriate helps carry messages of health [15,46]. Most users in this study claimed that speaking Russian was a crucial factor in creating trust. However, it appears that a preference for Russian as a language for dietary treatment depends on the parameters. This study is the first to assess the differences among the Russian immigrants who prefer Russian for their online treatment. The variance in the distribution of preferences did not depend on age group or number of years since immigrating; rather, those whose daily routines were in Russian preferred a Russian-speaking therapist.

The Russian interviewees stressed the importance of the therapist's mentality and knowledge of both Russian and Israeli cultures. They need to be counseled by a Russian immigrant to Israel. The professional literature supports these findings. One of the measures for diminishing health literacy gaps between the 2 population strata such as Russian immigrants and the permanent residents of Israel is the communication that stems from the patient's dominant culture [51]. Online health services offered by multicultural professionals are a valuable tool for reducing communication barriers [12] and can increase the compliance with dietary treatment. This may be why an online therapist can replace frontal treatment at a clinic.

In this study, participants stressed that they preferred treatment on the Internet because it enabled the creation of a long-term relationship between the therapist and the patient. Furthermore, long-term online dietary intervention allows for a real-time relationship and facilitates compliance. Thus, the patient could receive continual reinforcement and maintain motivation.

Most studies conducted on intervention programs were limited by time, where professional counseling was offered at predetermined points at the beginning, middle, and end [23,25,52]. Based on our findings, users valued counseling during crisis and periods of success, which are not predetermined.

Russian immigrants in the study turned to a dietary treatment which includes not only professional consultation, but also psychological support. Studies show that Internet users look for nutritional information from evidence-based and easily recognizable sources [53]. In addition, users need psychological

support and interventional guidance [54,55]. Providing professional consultation with coaching methods and psychological support show high compliance and usability among the IIFSU in this study.

In this study, this finding was particularly notable among young users (aged 25-35 years), regardless of difference in education or time spent in Israel, with a majority of women over men. In the professional literature, several explanations emerged for our study's findings. A Russian study [56], which performed an extensive examination of the behavioral patterns of more than 16 million users of the popular Russian social network (My.Mail.Ru), discovered that women were more active on the Internet than men. In addition, women were willing to disclose more details about themselves and share personal information, such as their physical appearance, hobbies, occupation, family status, and more. Similar findings have been noted among social network users around the world [57,58].

Creating professional and emotional support during the intervention that considers the cultural needs of patients fosters higher health care quality in cross-cultural situations [59].

Limitations

The limitations of this study are that as it is a qualitative study, it does not include a representative sample of the study population. In addition, the next step should be further validation through randomized controlled trials and implementation.

In our study, we did not compare the efficacy of the nutritional counseling online versus frontal nutritional counseling, as our focus was on the perceptions of the participants regarding the Internet as a tool for long-term and "real-time" professional, psychological, and nutritional treatment. Over the course of the study, some of the participants reported weight loss and an

improvement in clinical indicators. However, as noted, we did not gather quantitative clinical data that would enable a comparison with one-on-one nutritional counseling. Notwithstanding this, in the literature there are studies that indicate positive results when using online nutritional counseling, which have been found to lead to a significant improvement in nutrition and to a healthier lifestyle [60], weight loss, rise in consumption of fruits and vegetables, a decrease in consumption rate of fats and sugar, and a decrease in calorie consumption [54]. Other studies did not find a significant difference in BMI and the BMI z-score between the experimental group and the control group [61], nor did they find significant differences in serum, blood pressure, anthropometry, social support, and cholesterol [62].

Given that the field of online nutritional counseling is still a relatively new field, we think that more studies are needed in order to assess the effectiveness of online counseling as compared with on-one-one nutritional counseling. We can also assume that in the future, technological advances will improve the efficacy of online counseling, whether by incorporating virtual smart agents, and augmented and virtual reality, or by an increased presence of peers who will empower the patients, leading to more effective counseling.

Conclusions

This study is an examination of the perceptions of IIFSU regarding the Internet as a tool of nutritional treatment. It included long-term dietary treatment, real-time counseling, and nutritional information with psychological support. All the interventions were carried out with the immigrants' cultural needs in mind. Our study is the first to examine unique cultural perceptions and beliefs, which affect the rate of response to dietary treatment among a minority population.

Conflicts of Interest

None declared.

References

1. Ashman AM, Collins CE, Brown LJ, Rae KM, Rollo ME. A brief tool to assess image-based dietary records and guide nutrition counselling among pregnant women: an evaluation. *JMIR Mhealth Uhealth* 2016 Nov 04;4(4):e123 [FREE Full text] [doi: [10.2196/mhealth.6469](https://doi.org/10.2196/mhealth.6469)] [Medline: [27815234](https://pubmed.ncbi.nlm.nih.gov/27815234/)]
2. Enwald HP, Huotari ML. Preventing the obesity epidemic by second generation tailored health communication: an interdisciplinary review. *J Med Internet Res* 2010 Jun 28;12(2):e24 [FREE Full text] [doi: [10.2196/jmir.1409](https://doi.org/10.2196/jmir.1409)] [Medline: [20584698](https://pubmed.ncbi.nlm.nih.gov/20584698/)]
3. Cobb NK, Jacobs MA, Saul J, Wileyto EP, Graham AL. Diffusion of an evidence-based smoking cessation intervention through Facebook: a randomised controlled trial study protocol. *BMJ Open* 2014 Jan;4(1):e004089 [FREE Full text] [doi: [10.1136/bmjopen-2013-004089](https://doi.org/10.1136/bmjopen-2013-004089)] [Medline: [24448847](https://pubmed.ncbi.nlm.nih.gov/24448847/)]
4. Kernot J, Olds T, Lewis LK, Maher C. Effectiveness of a facebook-delivered physical activity intervention for post-partum women: a randomized controlled trial protocol. *BMC Public Health* 2013 May 29;13:518 [FREE Full text] [doi: [10.1186/1471-2458-13-518](https://doi.org/10.1186/1471-2458-13-518)] [Medline: [23714411](https://pubmed.ncbi.nlm.nih.gov/23714411/)]
5. Patrick K, Marshall SJ, Davila EP, Kolodziejczyk JK, Fowler JH, Calfas KJ, et al. Design and implementation of a randomized controlled social and mobile weight loss trial for young adults (project SMART). *Contemp Clin Trials* 2014 Jan;37(1):10-18 [FREE Full text] [doi: [10.1016/j.cct.2013.11.001](https://doi.org/10.1016/j.cct.2013.11.001)] [Medline: [24215774](https://pubmed.ncbi.nlm.nih.gov/24215774/)]
6. Lee SK, Sulaiman-Hill CM, Thompson SC. Providing health information for culturally and linguistically diverse women: priorities and preferences of new migrants and refugees. *Health Promot J Austr* 2013 Aug;24(2):98-103. [doi: [10.1071/HE12919](https://doi.org/10.1071/HE12919)] [Medline: [24168735](https://pubmed.ncbi.nlm.nih.gov/24168735/)]

7. Tanaka M, Strong C, Lee S, Juon H. Influence of information sources on hepatitis B screening behavior and relevant psychosocial factors among Asian immigrants. *J Immigr Minor Health* 2013 Aug;15(4):779-787 [FREE Full text] [doi: [10.1007/s10903-012-9753-9](https://doi.org/10.1007/s10903-012-9753-9)] [Medline: [23238580](https://pubmed.ncbi.nlm.nih.gov/23238580/)]
8. Mesch G, Mano R, Tsamir J. Minority status and health information search: a test of the social diversification hypothesis. *Soc Sci Med* 2012 Sep;75(5):854-858. [doi: [10.1016/j.socscimed.2012.03.024](https://doi.org/10.1016/j.socscimed.2012.03.024)] [Medline: [22633160](https://pubmed.ncbi.nlm.nih.gov/22633160/)]
9. Brzoska P, Razum O. [Prevention among migrants--problems in health care provision and suggested solutions illustrated for the field of medical rehabilitation]. *Dtsch Med Wochenschr* 2014 Sep;139(38):1895-1897. [doi: [10.1055/s-0034-1387238](https://doi.org/10.1055/s-0034-1387238)] [Medline: [25203550](https://pubmed.ncbi.nlm.nih.gov/25203550/)]
10. Khan NA, Saboor HT, Qayyum Z, Khan I, Habib Z, Waheed HT. Barriers to accessing the German health-care system for Pakistani immigrants in Berlin, Germany: a qualitative exploratory study. *The Lancet* 2013 Oct;382:18. [doi: [10.1016/S0140-6736\(13\)62179-0](https://doi.org/10.1016/S0140-6736(13)62179-0)]
11. Spallek J, Zeeb H, Razum O. Prevention among immigrants: the example of Germany. *BMC Public Health* 2010 Feb 24;10:92 [FREE Full text] [doi: [10.1186/1471-2458-10-92](https://doi.org/10.1186/1471-2458-10-92)] [Medline: [20181232](https://pubmed.ncbi.nlm.nih.gov/20181232/)]
12. Shpilko I. Russian-American health care: bridging the communication gap between physicians and patients. *Patient Educ Couns* 2006 Dec;64(1-3):331-341. [doi: [10.1016/j.pec.2006.03.014](https://doi.org/10.1016/j.pec.2006.03.014)] [Medline: [16859861](https://pubmed.ncbi.nlm.nih.gov/16859861/)]
13. Imamura F, Micha R, Khatibzadeh S, Fahimi S, Shi P, Powles J, Global Burden of Diseases Nutrition and Chronic Diseases Expert Group (NutriCoDE). Dietary quality among men and women in 187 countries in 1990 and 2010: a systematic assessment. *Lancet Glob Health* 2015 Mar;3(3):e132-e142 [FREE Full text] [doi: [10.1016/S2214-109X\(14\)70381-X](https://doi.org/10.1016/S2214-109X(14)70381-X)] [Medline: [25701991](https://pubmed.ncbi.nlm.nih.gov/25701991/)]
14. Lissitsa LS, Peres Y. New immigrants and old timers: Identity and interrelations - research findings. In: Epstein AD, Fedorchenko AV, editors. *Mass Migration and Its Impact on the Israeli Society*. Moscow and Jerusalem: Institute of Israeli and Middle Eastern Studies - Hebrew University of Jerusalem - Open University of Israel; (in Russian); 2000:244-278.
15. Moore M, Bias RG, Prentice K, Fletcher R, Vaughn T. Web usability testing with a Hispanic medically underserved population. *J Med Libr Assoc* 2009 Apr;97(2):114-121 [FREE Full text] [doi: [10.3163/1536-5050.97.2.008](https://doi.org/10.3163/1536-5050.97.2.008)] [Medline: [19404502](https://pubmed.ncbi.nlm.nih.gov/19404502/)]
16. Stroetmann K, Kubitschke L, Robinson S, Stroetmann V, Cullen K, McDaid D. Policy brief 13: How can telehealth help in the provision of integrated care? In: *Health Systems and Policy Analysis*. Copenhagen: World Health Organization; 2010.
17. Khvorostianov N, Elias N, Nimrod G. 'Without it I am nothing': The internet in the lives of older immigrants. *New Media & Soc* 2011 Nov 11;14(4):583-599. [doi: [10.1177/1461444811421599](https://doi.org/10.1177/1461444811421599)]
18. Yehle KS, Chen M, Plake KS, Yi JS, Mobley AR. A qualitative analysis of coronary heart disease patient views of dietary adherence and web-based and mobile-based nutrition tools. *J Cardiopulm Rehabil Prev* 2012;32(4):203-209 [FREE Full text] [doi: [10.1097/HCR.0b013e31825b4e6a](https://doi.org/10.1097/HCR.0b013e31825b4e6a)] [Medline: [22760245](https://pubmed.ncbi.nlm.nih.gov/22760245/)]
19. Chen JL, Weiss S, Heyman MB, Cooper B, Lustig RH. The efficacy of the web-based childhood obesity prevention program in Chinese American adolescents (Web ABC study). *J Adolesc Health* 2011 Aug;49(2):148-154 [FREE Full text] [doi: [10.1016/j.jadohealth.2010.11.243](https://doi.org/10.1016/j.jadohealth.2010.11.243)] [Medline: [21783046](https://pubmed.ncbi.nlm.nih.gov/21783046/)]
20. Saha S, Leijon M, Gerdtham U, Sundquist K, Sundquist J, Arvidsson D, et al. A culturally adapted lifestyle intervention addressing a Middle Eastern immigrant population at risk of diabetes, the MEDIM (impact of Migration and Ethnicity on Diabetes In Malmö): study protocol for a randomized controlled trial. *Trials* 2013 Sep 03;14:279 [FREE Full text] [doi: [10.1186/1745-6215-14-279](https://doi.org/10.1186/1745-6215-14-279)] [Medline: [24006857](https://pubmed.ncbi.nlm.nih.gov/24006857/)]
21. Samkange-Zeeb F, Ernst SA, Klein-Ellinghaus F, Brand T, Reeske-Behrens A, Plumbaum T, et al. Assessing the acceptability and usability of an Internet-based intelligent health assistant developed for use among Turkish migrants: results of a study conducted in Bremen, Germany. *Int J Environ Res Public Health* 2015 Dec 03;12(12):15339-15351 [FREE Full text] [doi: [10.3390/ijerph121214987](https://doi.org/10.3390/ijerph121214987)] [Medline: [26633455](https://pubmed.ncbi.nlm.nih.gov/26633455/)]
22. Sanou D, O'Reilly E, Ngnie-Teta I, Batal M, Mondain N, Andrew C, et al. Acculturation and nutritional health of immigrants in Canada: a scoping review. *J Immigr Minor Health* 2014 Feb;16(1):24-34 [FREE Full text] [doi: [10.1007/s10903-013-9823-7](https://doi.org/10.1007/s10903-013-9823-7)] [Medline: [23595263](https://pubmed.ncbi.nlm.nih.gov/23595263/)]
23. Kattelman KK, White AA, Greene GW, Byrd-Bredbenner C, Hoerr SL, Horacek TM, et al. Development of Young Adults Eating and Active for Health (YEAH) internet-based intervention via a community-based participatory research model. *J Nutr Educ Behav* 2014 Mar;46(2):S10-S25. [doi: [10.1016/j.jneb.2013.11.006](https://doi.org/10.1016/j.jneb.2013.11.006)] [Medline: [24456834](https://pubmed.ncbi.nlm.nih.gov/24456834/)]
24. McCambridge J, Bendtsen M, Karlsson N, White IR, Bendtsen P. Alcohol assessment & feedback by e-mail for university student hazardous and harmful drinkers: study protocol for the AMADEUS-2 randomised controlled trial. *BMC Public Health* 2013;13:949 [FREE Full text] [doi: [10.1186/1471-2458-13-949](https://doi.org/10.1186/1471-2458-13-949)] [Medline: [24456668](https://pubmed.ncbi.nlm.nih.gov/24456668/)]
25. Pal K, Eastwood SV, Michie S, Farmer AJ, Barnard ML, Peacock R, et al. Computer-based diabetes self-management interventions for adults with type 2 diabetes mellitus. *Cochrane Database Syst Rev* 2013 Mar 28;28(3):CD008776. [doi: [10.1002/14651858.CD008776.pub2](https://doi.org/10.1002/14651858.CD008776.pub2)] [Medline: [23543567](https://pubmed.ncbi.nlm.nih.gov/23543567/)]
26. Rozenbaum-Tamari Y, Damian N. First 5 absorption years of Soviet Union immigrants (1990-1995). In: Gindin R, Rozenbaum-Tamari Y, editors. *Immigrant Absorption Israel - Research Abstracts*. Jerusalem: Ministry of Immigrant Absorption, Research and Planning Department; 1996:51-56.

27. Lissak M. The immigrants from the Soviet Union between seclusion and integrating. In: Lissak M, editor. *Israel Towards the Year 2000*. Jerusalem: Magnes; 1996:1-24.
28. Biederman P. *Social Distance of Young Newcomers from the Former USSR from Israeli Society*. Haifa: School of Social Work, University of Haifa; 1997.
29. Aaronson N. *Absorption of immigrant's students from Soviet Union in the mirror of the reference group model*. Haifa: University of Haifa; 1994.
30. Kozulin A, Wanger A. Immigration without adaptation: The psychological world of immigrants. In: Prital D, editor. *The Jews of the Soviet Union in Transition*. Jerusalem: The Public Committee for the Soviet Union Jews; 1995:183-192.
31. Leshem E. The Israel public's attitudes toward the new immigrants of the 1990s. *Immigration to Israel: Sociological Perspectives* 1994;3:164-188.
32. Mirsky J, Praver L. To immigrate as an adolescent. In: Horowitz T, editor. *Children of Perestroika in Israel*. Lanham: University Press of America; 1999.
33. Rosenbaum Y, Farber H. Social absorption of immigrants. In: Loewenberg M, Kraus M, editors. *Absorption and Welfare in Israel - Reader*. Ramat Gan: Bar Ilan University; 1979:15-46.
34. Ben-Sira Z. Nutrition knowledge and habits among immigrants from Ethiopia and Soviet Union. Jerusalem: Adar; 1993.
35. Benisovich SV, King AC. Meaning and knowledge of health among older adult immigrants from Russia: a phenomenological study. *Health Educ Res* 2003 Apr;18(2):135-144 [FREE Full text] [doi: [10.1093/her/18.2.135](https://doi.org/10.1093/her/18.2.135)] [Medline: [12729173](https://pubmed.ncbi.nlm.nih.gov/12729173/)]
36. Duncan L, Simmons M. Health practices among Russian and Ukrainian immigrants. *J Community Health Nurs* 1996;13(2):129-137. [doi: [10.1207/s15327655jchn1302_6](https://doi.org/10.1207/s15327655jchn1302_6)] [Medline: [8764387](https://pubmed.ncbi.nlm.nih.gov/8764387/)]
37. Hosler AS, Melnik TA, Spence MM. Diabetes and its related risk factors among Russian-speaking immigrants in New York State. *Ethn Dis* 2004;14(3):372-377. [Medline: [15328938](https://pubmed.ncbi.nlm.nih.gov/15328938/)]
38. Ivanov LL, Buck K. Health care utilization patterns of Russian-speaking immigrant women across age groups. *J Immigr Minor Health* 2002;4(1):17-27. [doi: [10.1023/A:1013055110631](https://doi.org/10.1023/A:1013055110631)] [Medline: [16228751](https://pubmed.ncbi.nlm.nih.gov/16228751/)]
39. Ivanov LL, Hu J, Pokhis K, Roth W. Preventive health care practices of former Soviet union immigrant women in Germany and the United States. *Home Health Care Manag Pract* 2010 Dec;22(7):485-491. [doi: [10.1177/1084822310370945](https://doi.org/10.1177/1084822310370945)]
40. Mehler PS, Scott JY, Pines I, Gifford N, Biggerstaff S, Hiatt W. Russian immigrant cardiovascular risk assessment. *J Health Care Poor Underserved* 2001 May;12(2):224-235. [doi: [10.1353/hpu.2010](https://doi.org/10.1353/hpu.2010)] [Medline: [11370189](https://pubmed.ncbi.nlm.nih.gov/11370189/)]
41. Keinan-Boker L, Noyman N, Chinich A, Green M, Nitzan-Kaluski D. Overweight and obesity prevalence in Israel: findings of the first national health and nutrition survey (MABAT). *Isr Med Assoc J* 2005 Apr;7(4):219-223 [FREE Full text] [Medline: [15847200](https://pubmed.ncbi.nlm.nih.gov/15847200/)]
42. Krueger RA, Casey MA. *Focus Groups: A Practical Guide for Applied Research*. 4th ed. Thousand Oaks, CA: Sage Publications; 2009.
43. Shkedi A. *Words of Meaning: Qualitative Research - Theory and Practice*. Tel-Aviv: Ramot - Tel-Aviv University; 2003.
44. Patton MQ. *Qualitative research & evaluation method*. 4th ed. Thousand Oaks, CA: Sage Publications; 2015.
45. Guillemín M, Gillam L. Ethics, reflexivity, and "ethically important moments" in research. *Qual Inq* 2004 Apr;10(2):261-280. [doi: [10.1177/1077800403262360](https://doi.org/10.1177/1077800403262360)]
46. Selsky C, Luta G, Noone A, Huerta EE, Mandelblatt JS. Internet access and online cancer information seeking among Latino immigrants from safety net clinics. *J Health Commun* 2013;18(1):58-70 [FREE Full text] [doi: [10.1080/10810730.2012.688248](https://doi.org/10.1080/10810730.2012.688248)] [Medline: [23066874](https://pubmed.ncbi.nlm.nih.gov/23066874/)]
47. Wang MP, Wang X, Lam TH, Viswanath K, Chan SS. Health information seeking partially mediated the association between socioeconomic status and self-rated health among Hong Kong Chinese. *PLoS One* 2013;8(12):e82720 [FREE Full text] [doi: [10.1371/journal.pone.0082720](https://doi.org/10.1371/journal.pone.0082720)] [Medline: [24349347](https://pubmed.ncbi.nlm.nih.gov/24349347/)]
48. Gesser-Edelsburg A, Endevelt R, Zemach M, Tirosh-Kamienchick Y. Food consumption and nutritional labeling among immigrants to Israel from the former Soviet Union. *J Immigr Minor Health* 2015 Apr;17(2):459-466. [doi: [10.1007/s10903-013-9885-6](https://doi.org/10.1007/s10903-013-9885-6)] [Medline: [23955168](https://pubmed.ncbi.nlm.nih.gov/23955168/)]
49. Lopez-De Fede A, Bowman RP, Ewing T, Hanna J, Stafford Robinson J. *Building Culture Bridges*. Bloomington, IN: National Educational Service; 1997.
50. Becker ER, Roblin DW. Translating primary care practice climate into patient activation: the role of patient trust in physician. *Med Care* 2008 Aug;46(8):795-805. [doi: [10.1097/MLR.0b013e31817919c0](https://doi.org/10.1097/MLR.0b013e31817919c0)] [Medline: [18665059](https://pubmed.ncbi.nlm.nih.gov/18665059/)]
51. Nielsen-Bohlman L, Panzer AM, Kindig DA. *Health Literacy: a Prescription to End Confusion*. Washington, DC: National Academies Press; 2004.
52. Harmsen IA, Doorman GG, Mollema L, Ruiter A, Kok G, de Melker HE. Parental information-seeking behaviour in childhood vaccinations. *BMC Public Health* 2013 Dec 21;13:1219 [FREE Full text] [doi: [10.1186/1471-2458-13-1219](https://doi.org/10.1186/1471-2458-13-1219)] [Medline: [24358990](https://pubmed.ncbi.nlm.nih.gov/24358990/)]
53. van Veen MR, Beijer S, Adriaans AM, Vogel-Boezeman J, Kampman E. Development of a website providing evidence-based information about nutrition and cancer: fighting fiction and supporting facts online. *JMIR Res Protoc* 2015 Sep 08;4(3):e110 [FREE Full text] [doi: [10.2196/resprot.4757](https://doi.org/10.2196/resprot.4757)] [Medline: [26350824](https://pubmed.ncbi.nlm.nih.gov/26350824/)]

54. Anderson-Bill ES, Winett RA, Wojcik JR, Winett SG. Web-based guide to health: relationship of theoretical variables to change in physical activity, nutrition and weight at 16-months. *J Med Internet Res* 2011 Mar 04;13(1):e27 [FREE Full text] [doi: [10.2196/jmir.1614](https://doi.org/10.2196/jmir.1614)] [Medline: [21447470](https://pubmed.ncbi.nlm.nih.gov/21447470/)]
55. Love B, Thompson CM, Crook B, Donovan-Kicken E. Work and “mass personal” communication as means of navigating nutrition and exercise concerns in an online cancer community. *J Med Internet Res* 2013 May 31;15(5):e102 [FREE Full text] [doi: [10.2196/jmir.2594](https://doi.org/10.2196/jmir.2594)] [Medline: [23728365](https://pubmed.ncbi.nlm.nih.gov/23728365/)]
56. Kisilevich S, Ang CS, Last M. Large-scale analysis of self-disclosure patterns among online social networks users: a Russian context. *Knowl Inf Syst* 2011 Sep 25;32(3):609-628. [doi: [10.1007/s10115-011-0443-z](https://doi.org/10.1007/s10115-011-0443-z)]
57. Christofides E, Muise A, Desmarais S. Information disclosure and control on Facebook: are they two sides of the same coin or two different processes? *Cyberpsychol Behav* 2009 Jun;12(3):341-345. [doi: [10.1089/cpb.2008.0226](https://doi.org/10.1089/cpb.2008.0226)] [Medline: [19250020](https://pubmed.ncbi.nlm.nih.gov/19250020/)]
58. Henderson S, Gilding M. ‘I’ve Never Clicked this Much with Anyone in My Life’: trust and hyperpersonal communication in online friendships. *New Media & Soc* 2004 Aug;6(4):487-506. [doi: [10.1177/146144804044331](https://doi.org/10.1177/146144804044331)]
59. Saha S, Beach MC, Cooper LA. Patient centeredness, cultural competence and healthcare quality. *J Natl Med Assoc* 2008 Nov;100(11):1275-1285. [doi: [10.1016/S0027-9684\(15\)31505-4](https://doi.org/10.1016/S0027-9684(15)31505-4)] [Medline: [19024223](https://pubmed.ncbi.nlm.nih.gov/19024223/)]
60. Van Dijk MR, Huijgen NA, Willemsen SP, Laven JS, Steegers EA, Steegers-Theunissen RP. Impact of an mHealth platform for pregnancy on nutrition and lifestyle of the reproductive population: a survey. *JMIR Mhealth Uhealth* 2016 May 27;4(2):e53 [FREE Full text] [doi: [10.2196/mhealth.5197](https://doi.org/10.2196/mhealth.5197)] [Medline: [27234926](https://pubmed.ncbi.nlm.nih.gov/27234926/)]
61. Hammersley ML, Jones RA, Okely AD. Parent-focused childhood and adolescent overweight and obesity eHealth interventions: a systematic review and meta-analysis. *J Med Internet Res* 2016 Jul 21;18(7):e203 [FREE Full text] [doi: [10.2196/jmir.5893](https://doi.org/10.2196/jmir.5893)] [Medline: [27443862](https://pubmed.ncbi.nlm.nih.gov/27443862/)]
62. Verheijden M, Bakx JC, Akkermans R, van den Hoogen H, Godwin NM, Rosser W, et al. Web-based targeted nutrition counselling and social support for patients at increased cardiovascular risk in general practice: randomized controlled trial. *J Med Internet Res* 2004 Dec 16;6(4):e44 [FREE Full text] [doi: [10.2196/jmir.6.4.e44](https://doi.org/10.2196/jmir.6.4.e44)] [Medline: [15631968](https://pubmed.ncbi.nlm.nih.gov/15631968/)]

Edited by G Eysenbach; submitted 08.12.16; peer-reviewed by R Endevelt, K Kattelman; comments to author 18.01.17; revised version received 22.01.17; accepted 22.01.17; published 03.02.17

Please cite as:

Gesser-Edelsburg A, Shalayeva S

Internet as a Source of Long-Term and Real-Time Professional, Psychological, and Nutritional Treatment: A Qualitative Case Study Among Former Israeli Soviet Union Immigrants

J Med Internet Res 2017;19(2):e33

URL: <http://www.jmir.org/2017/2/e33/>

doi: [10.2196/jmir.7130](https://doi.org/10.2196/jmir.7130)

PMID: [28159729](https://pubmed.ncbi.nlm.nih.gov/28159729/)

©Anat Gesser-Edelsburg, Svetlana Shalayeva. Originally published in the Journal of Medical Internet Research (<http://www.jmir.org>), 03.02.2017. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in the Journal of Medical Internet Research, is properly cited. The complete bibliographic information, a link to the original publication on <http://www.jmir.org/>, as well as this copyright and license information must be included.