

SOCIOCULTURAL FACTORS OF THE EMOTIONAL STATE OF CANCER SURVIVORS (ON THE EXAMPLE OF UKRAINE AND ISRAEL)

^aKATERYNA LYSNYK, ^bVSEVOLOD ZELENIN

^{a,b}National Pedagogical Dragomanov University, Kyiv, Ukraine.
email: ^akl0682311520@gmail.com, ^bsevacello@gmail.com

Abstract: During the phase of remission, cancer patients commonly experience the psychological impact of fearing the return of traumatic events, namely the disease, hindering their ability to fully engage in life. The aim of the paper was to study the peculiarities of the psycho-emotional state, namely anxiety and the level of fear of cancer recurrence, in cancer survivors from Ukraine and Israel. The peculiarities of providing medical and psychological care for cancer patients in these countries were considered, and it was found that Israeli society had much more psychosocial support for patients. Additionally, the research examined how beliefs surrounding the myth causes of cancer and the option of alternative unofficial remedies influenced the information landscape of both countries. The paper described the obtained patterns and drew preliminary conclusions about the perception of their own illness by cancer survivors during a full-scale war in Ukraine. The Israeli respondents were in a relatively peaceful phase of the Arab-Israeli conflict at the time of this study. The results obtained in this research, which is preliminary, indicate that there are differences in self-perception of illness and outlook on the future between cancer survivors who have achieved remission in Ukraine and Israel. Research has revealed that Ukrainian survivors experience a greater degree of fear of cancer recurrence compared to cancer survivors from Israel.

Keywords: Myths about cancer, Cross-cultural research, Anxiety, Fear of cancer recurrence, Psychological well-being of immigrants.

1 Introduction

The problem of psychological well-being among cancer patients is recognized, although it remains relatively under-researched. Even less attention is paid to the needs of immigrant cancer survivors who face both the problem of adaptation in a new country and the need to overcome the medical and psychological consequences of the disease. The war is currently ongoing in Ukraine, and many cancer patients have been forced to take advantage of medical evacuation, effectively becoming forced immigrants. The country of Israel has been in a state of heightened military threat for many years, so it can be chosen for comparison, especially since it has a fairly large diaspora of immigrants from Ukraine. Also, uncertainty and anxiety can be added to cancer survivors by the presence of myths about cancer treatment in the media to varying degrees. Usually, in different countries and cultural environments, the tendency to accept these myths on faith varies from reasonable critical thinking to complete acceptance of any, even rather strange, mythical ideas. This problem is known all over the world, so the impact of attitudes towards the disease and psycho-emotional state on treatment adherence is important for Ukrainian cancer patients who do not change their mentality as quickly as the host country when they are forced to immigrate.

Even when cancer patients successfully overcome the disease, they still have unresolved psychological problems. One of the main psychological problems at the stage of cancer remission is the fear of cancer recurrence (hereinafter referred to as FCR), which can take on dysfunctional forms and worsen the quality of life. Some scientific studies have previously shown that the perception of the disease and its coping are to some extent influenced by personality traits, as well as the social and cultural context. This article explored the psychological differences in fear of cancer recurrence between three groups of older cancer survivors: residents of Ukraine, residents of Israel, and immigrants from Ukraine to Israel.

2 Analysis of previous studies

As advances in medical treatments extend the lives of cancer patients from an incurable disease to a chronic one, the challenges of psychological support of treating the disease become more important. The importance of discovering solutions to psychological support individuals in dealing with chronic, life-threatening illnesses, handling the adverse effects of intense treatment, and navigating the personal, social, and professional impacts of disability caused by the disease is

steadily growing. The increasing fascination with the relationship between the mind and body in mainstream literature has led to a surge in demand for supplementary and alternative therapies and concepts, both beneficial and detrimental (Spiegel *et al.*, 1998). Studies from the end of the last century show that more than 40% of Americans used complementary therapies, and most did so in addition to traditional medical care, not instead of it, which was positive (Eisenberg *et al.*, 1998). However, two-thirds of patients who used complementary therapies did not inform their doctors about their additional therapy, which became a problem (Eisenberg *et al.*, 1993). We expect that the figures would be equally high if a survey were conducted today among Ukrainian patients.

According to the International Agency for Research on Cancer Globocan 2020, the incidence of cancer is 19.3 million cases worldwide with over 10 million deaths from cancer in 2020. Because the etiology of cancer is multifactorial and has a variety of manifestations, many myths and misconceptions are invariably associated with it (Dantis *et al.*, 2021).

Misconceptions about cancer can increase the level of fear among the general public, impair the psychological well-being of cancer patients, and make it more difficult to cope with cancer. The results of specialised studies (e.g. Carlsson & Strang, 1997) emphasise the importance of adequate information about cancer and its treatment, with those with the least formal education being a particularly important target group for information.

The psychological well-being is a complex and multidimensional concept. It has many aspects: physical, economic, social, functional, emotional, spiritual, and subjective. Like any other serious illness, cancer has a detrimental effect on the psychological well-being of an individual, and therefore on their psychological state (Nefedova, 2021).

Even in a socioeconomically developed American society, it is observed that the escalating expenses associated with cancer treatment pose a significant challenge to achieving success in this discipline. Multiple stakeholders argue that the absence of financial resources among cancer patients can undermine the overall progress in combating this disease (Newcomer, 2014). In contrast to the rising cost of treatment, certain sources in the information space offer dubious but cheap alternatives. Certain researchers expose myths about cancer treatment (Goldman & Philipson, 2014), refuting claims that the official medicine's war on cancer is unsuccessful and that treatment costs are unacceptable. In addition, they provide evidence that patients highly value the opportunity to use these treatments. However, there are also other opinions in society, such as that cancer treatment is currently a conspiracy between oncologists and pharmaceutical companies to make excessive profits. And there are followers "alternative" treatments that are promoted as alternatives to official cancer treatment. They typically lack biological plausibility and scientific evidence of safety and efficacy, and some are outright frauds (Deng & Cassileth, 2013).

Unfortunately, the Ukrainian media space is overloaded with information about "alternative" methods of cancer treatment. Moreover, it has been established that the assessment of media messages by cancer survivors largely depends on their educational level, linguistic-cultural competence, psychological and religious-ideological characteristics, and the features of their native sociocultural layer of society. At the same time, each recipient is an active participant in the media space, who, perceiving any media material, passes it through their own perception of the value system, either approving or rejecting it, thereby contributing to its further dissemination (Kuznyetsova, 2022).

The cultural tradition in which a cancer patient lives determines not only their life perception but also their mentality with all its

peculiarities, including their attitude to the normality/pathology of their conditions and perception of their psychological problems. The latter implies that when seeking psychological care approaches, it is crucial to consider the socio-cultural background of the individual diagnosed with cancer, which is usually consistent with the socio-cultural norms of the ethnic community within which they live (Fed'ko, 2023).

Cancer is usually diagnosed in middle or old age. Some Ukrainian studies on resilience have developed the concept of age-related crises in old age, with the crisis of adaptation to any changes in life being primarily caused by socio-cultural factors and manifesting itself quite individually. It is noted that its course depends on both social factors and entire person's previous experience (Lych, 2021). Likewise, the perception of one's oncological disease from stage to stages, as well as the accompanying emotional state depend on many crisis coping factors.

Participants in an Israeli study described that returning to normal life after achieving remission is quite possible, but many cancer survivors have to cope with the FCR for a long period of time, with every physical symptom arousing suspicion and reminiscent of previous experiences of insecurity and uncertainty (Levkovich, 2019). For example, from a quarter to almost all the interviewed cancer survivors reported about a FCR and that this fear had lasted for years. This study participants expressed their perceptions of the temporality and fragility of life and feelings of helplessness, defenselessness, and lack of control over the relapse of the disease.

Another Israeli study aimed to examine the perception of cancer and its personal and family consequences, emotional reactions, and coping strategies in the religious and cultural context of Arabs in Israel (Goldblatt, Cohen, Azaiza & Manassa, 2013). In the process of fighting the breast cancer and its consequences, some women gradually became more aware of their personal well-being, asserting their right to receive support from their families and do not caring about the needs of others exclusively. This new attitude was reinforced by meetings with Jewish patients, who introduced Arab women to a modern cultural alternative.

In the presented article, the psychological well-being of the immigrant social group (in the context of Israel, repatriates) was also addressed. Since many previous studies have noted that immigrants have a worse tolerance to cancer treatment and a more difficult recovery from it, both physically and psychologically, the results of the study may be useful for specifying the problem. The study (Butow et al., 2013) documented unmet needs and variables associated with them in a social group of first-generation immigrants compared to a group of Anglo-Australian cancer survivors. The result shows that immigrant cancer survivors are more likely to have an unmet need for care than Anglo-Australians several years after their initial diagnosis, and they are very keen to receive information and support in their own language.

In the United States, a meta-analysis study was conducted by searching PubMed, CINAHL, and Scopus databases to find studies in English (2009-2018) targeting Asian immigrant cancer survivors. A thematic analysis of the study elements revealed 4 themes with sub-themes: (1) coping strategies, (2) barriers, (3) culturally informed care, and (4) quality of life (Lockhart, Oberleitner & Nolfi, 2020). All of these topics were of interest to this study.

3 Objective

The aims of this research were:

- to investigate the peculiarities of the psycho-emotional state (reactive anxiety, the level of FCR, and peculiarities of perceiving their own diagnosis) in cancer survivors from Ukraine and Israel, as well as immigrants to Israel from Ukraine;

- to understand the distinctive features of medical and psychological support provided to cancer patients in both countries;
- to analyze the availability of information about the mythical causes of cancer and alternative ways of treating it in the media space of these countries, as well as the willingness of participants to accept this unreliable and scientifically unconfirmed information.

The purpose of the article was to highlight the perception of the possibility of cancer recurrence by cancer patients in remission from different cultural communities. Of particular interest was the study of the reactions of elderly people who belong to a relatively rigid group, which is usually the bearer of sociocultural traditions.

4 Methods

The way people respond to a cancer diagnosis is determined by their personal experiences, history and belief systems, social relationships, cultural context, and the clinical characteristics of the disease itself. In order to account for these differences, the research team developed a questionnaire to capture participants' socio-demographic data and medical information about their diagnosis and treatment. This questionnaire was part of a larger study and has been tested at the Faculty of Psychology of the Institute of Advanced Training of the State Employment Service of Ukraine, SESU (Lysnyk K. A., 2021). The structure of the questionnaire is presented in the Appendix.

The following standardised methodologies were also used.

The Big Five Inventory, a 44-item personality inventory, was chosen in order to obtain a psychological portrait of the individual on 5 scales as modified by O. John, L. Naumann, and S. Soto (BFI 44) (John, Naumann, & Soto, 2008). The Hebrew version for Israeli participants has been validated (Shmotkin & Keinan, 2011).

The Tolerance Ambiguity Scale (TAS) (Budner, S., 1962) was used to determine how tolerant a person is to uncertainty and at the same time intolerant of it, and the version adapted by (T. V. Kornilova & Chumakova, 2014).

The Spielberger State-Trait Anxiety Inventory, STAI (Spielberger, Gorsuch & Lushene, 1970) was chosen for self-assessment of situational anxiety (reactive anxiety as a state) and personality anxiety as a personality trait. The Hebrew version of this scale was adapted from (Teichman & Melinek, 1978).

The Berne Coping Forms Inventory (BEFO) was chosen as a method for assessing adaptive or maladaptive cognitive, emotional, and behavioral coping strategies that a participant chooses in a crisis situation (Heim, Augustiny, Schaffner & Valach, 1993).

The short version of the Fear of Cancer Recurrence Inventory, FCRI-SF (Simard & Savard, 2009) was used to screen for clinical FCR levels. Permission for use in this study was obtained from the author, Sebastian Simard (Toronto, Canada).

Analysis of the information space. A review of the media space was conducted using relevant queries in information search engines. Easily accessible information on 1) available medical and psychological official state assistance, 2) information on volunteer psychological support projects, and 3) information on alternative and scientifically unproven methods, as well as mythical causes of cancer and ways to treat it, was selected. The obtained information was analysed and systematised for comparison between the information spaces of Ukraine and Israel.

Participants. The study sought participants by utilising online platforms to distribute invitations predominantly to cancer patient groups and various social communities. The questionnaires and study design for Israelis and repatriates were approved by the Ethics Committee of Tel Aviv University. The

questionnaire for Ukrainians was approved by the ethics committee of the SESU.

The total number of participants was 65, divided into 3 groups based on their country of residence or repatriation: 22 citizens of Ukraine, 22 citizens of Israel (born or living in Israel for most of their lives), and 21 repatriates to Israel from Ukraine (and the former USSR). There were 57 women and 8 men among the respondents.

5 Results

Important features of the established ways of providing and consuming psychological care that affect the quality of life of cancer survivors are: 1) the specifics of the organisation of psychological care in the country; 2) the peculiarities of seeking psychological care for elderly Ukrainians and Israelis; and 3) cultural differences in accepting one's diagnosis, attitudes towards alternative medicine and the prevalence of myths about cancer. The state of psychological care for cancer survivors in Ukraine and Israel was studied, and the patterns identified are presented below.

5.1 Specifics of the organisation of psychological care in Ukraine

Ukraine has several healthcare facilities dedicated to cancer treatment, including the Kyiv City Clinical Oncology Centre, regional oncology centres, and the National Cancer Institute. Cancer treatment is also provided in local hospitals. Medical (and psychological, which is provided by a medical psychologist) care is regulated by the Law of Ukraine "Fundamentals of the Legislation of Ukraine on Healthcare" and "On Approval of the Global State Programme for Combating Cancer for the Period up to 2016" (the law has been extended). It is difficult for Ukrainian cancer patients to receive free psychological assistance, as not all hospitals have psychologists, and psychological assistance is not provided at all for those in remission.

The "Inspiration Family" NGO provides a psychologist voluntarily during active treatment in oncology clinics, and over the past 5 years, they have achieved significant success in this regard. There is also a volunteer hotline for psychological assistance to cancer patients called "Worth Living".

5.2 Specifics of the organisation of psychological care in Israel

In Israel, the National Health Insurance Law provides for universal health care, which is provided through four Health Insurance Funds with computerised administrative, pharmaceutical, and medical databases. Israeli cancer care is also regulated by the Patients' Rights Law. Psychological support during cancer treatment can be obtained in the hospital from a medical psychologist, if available, or by contacting a social worker. This support is part of the medical care and is covered by health insurance. It is more difficult to get psychological help through health insurance during remission, but it is possible. The Association for the War on Cancer has been leading the fight against cancer in Israel since 1952, with more than 70 branches. They provide free assistance to cancer patients and their families: the support in psychological groups, information, and classes that help in the personal and moral confrontation with the disease. The Association of Oncologists has a round-the-clock telephone help-desk. For repatriates, there is a telephone line in Russian (no Ukrainian).

5.3 Age-related peculiarities of seeking psychological help in Ukraine and Israel

Empirical evidence describing the unique needs of older cancer patients is strikingly limited in proportion to the cancer demographics of our ageing society. Historically, patients over 65 years of age have been excluded from clinical trials (and this continues to this day), resulting in a dearth of data for this age

group (Surbone, Kagawa-Singer, Terret & Baider, 2007). Nevertheless, some patterns are known.

In Ukraine, the older generation largely dislikes and doesn't want to use psychological assistance. They often confuse psychologists with psychiatrists and interact with them with extreme caution. This problem is also known outside of Ukraine. Historical misconceptions have distorted the older generation's perceptions of mental health, leading to embarrassment or shame about "impose your problems on others" and "ask for help".

In Israel, a more modern Western approach to psychological care prevails, and it is widely used by the elderly, as payment for psychological sessions through health insurance makes it quite affordable, it is widely used by older adults. However, repatriates in Israel are more likely to face the problem of receiving psychological assistance because they want to receive this service in their native language, which is possible for Russian-speaking repatriates from Ukraine, but significantly lengthens the wait.

5.4 Cultural differences in accepting one's diagnosis, attitudes towards alternative medicine, and the prevalence of myths about cancer

Several media resources in the Ukrainian information space have been found to promote alternative and potentially harmful treatment methods that lack scientific support (for example, Psychosomatics of Cancer: How to Treat Cancer Without Surgery, an online resource). Official resources, usually from oncology clinics or NGOs, are also available, but not sufficiently.

In the Israeli information space, such resources are found, however, the initial search engine results predominantly display official sources (for example, the Cancer War Association, an online resource - Cancer War Association).

The cognitive and emotional statements based on which people build their coping strategies are of great importance in relation to their own diagnosis. Therefore, the responses to the Heim Coping Strategies Questionnaire by participant group were analysed in detail. Both societies, Ukrainian and Israeli, are quite religious, so beliefs in the help of higher powers (Humility and Religiosity) are distributed accordingly: 13.6% for Ukrainians, 22.7% for Israelis, and 19% for repatriates. The idea of cancer as a punishment for sins is also present in all groups of respondents (about 9% in each group chose the emotional statement "I get what I deserve").

However, for Israelis, the top three priority is Maintaining Composure (adaptive cognitive), Optimism (adaptive emotional), and Appeal (adaptive behavioural), and the questions are more often formulated in the form of: What should I do to get better? Similar patterns are observed in to a group of repatriates for whom Problem Analysis (adaptive cognitive), Optimism (adaptive emotional), and Cooperation (adaptive behavioural) are in the first place, and the question is formulated as: Who can help me?

At the same time, Ukrainians are most likely to use the following coping strategies: Preservation of self-control (adaptive cognitive), Suppression of emotions (maladaptive emotional), and Distraction (partially adaptive behavioural), and the question is formulated as: How do I get through difficult times?

Based on the responses to the Heim BEFO questionnaire, the percentage of adaptive, non-adaptive, and partially adaptive strategies chosen by respondents was analysed. The following was found.

5.5 For a group of Ukrainians

Cognitive coping strategies: most often adaptive 50% (Preservation of self-control, Problem analysis, and Establishment of self-worth), then maladaptive 36.4% (Humility, Ignoring, Dissimulation, and Confusion), and 13.7% chose

partially adaptive strategies (Relativity, Religiosity and Adding meaning).

Emotional coping strategies: most often non-adaptive 45.4% (Suppression of emotions, Self-blame, and Aggressiveness), and adaptive (Optimism) and partially adaptive (Emotional release and Passive cooperation) equally, 27.3% each.

Behavioural coping strategies: most often adaptive, 40.9% (Altruism, Cooperation, and Appeal), then partially adaptive, 31.8% (Distraction, Compensation, and Constructive Activity), and least maladaptive, 27.3% (Active Avoidance and Retreat).

5.6 For a group of Israelis

Cognitive coping strategies: most often adaptive 50% (Preservation of self-control, Problem analysis, and Establishment of self-worth), then partially adaptive strategies, 27.3% (Relativity, Religiosity, and Adding meaning), and least maladaptive, 22.7% (Humility, Ignoring and Dissimulation).

Emotional coping strategies: most often adaptive, 59.1% (Protest and Optimism), then partially adaptive, 22.7% (Emotional Relief and Passive Cooperation), and least often maladaptive, 18.2% (Suppression of Emotions, Self-Blame and Aggression).

Behavioural coping strategies: most often adaptive, 59.1% (Altruism, Cooperation, and Appeal), then partially adaptive, 31.8% (Distraction, Compensation, and Constructive Activity),

and the least maladaptive, 9.1% (Active Avoidance and Retreat).

5.7 For a group of repatriates

Cognitive coping strategies: most often adaptive, 47.6% (Preservation of self-control, Problem analysis, and Establishment of self-worth), then partially adaptive strategies, 33.3% (Relativity, Religiosity, and Adding meaning), and least maladaptive, 19.1% (Humility, Dissimulation, and Confusion).

Emotional coping strategies: most often adaptive, 66.7% (Protest and Optimism), then non-adaptive, 23.8% (Suppression of emotions and Self-blame), and least partially adaptive, 9.5% (Passive cooperation).

Behavioural coping strategies: most often adaptive, 52.4% (Altruism, Cooperation, and Appeal), and partially adaptive (Distraction and Compensation) and maladaptive (Active Avoidance and Retreat) equally, 23.8% each.

5.8 Results of statistical analysis of the survey participants' responses

The groups of participants in the study based on the completed participant questionnaire were analysed. The socio-demographic and medical characteristics for different groups of participants are summarised in Table 1.

Table 1. Information about the study participants by group

Indicator	Gradations	A group of Ukrainians	A group of Israelis	Repatriates group
Age (by WHO classification)	young age, %.	40,91%	13,63%	14,28%
	average age, %.	36,37%	45,46%	52,38%
	old age, %.	22,72%	40,91%	33,33%
Age, average		49,7	56,7	54,5
Place of residence.	capital	14,28%	9,09%	4,76%
	regional city	76,2%	81,82%	85,72%
	rural countryside, kibbutz moshav	9,52%	9,09%	9,52%
Education	medium	4,54%	4,54%	-
	technical school, college	13,65%	36,37%	36,37%
	superior	81,81%	49,49%	63,63%
	Scientist degree (PhD, Doctor of Science)	-	9,10%	-
Marital status	never been to marriage	4,54%	9,09%	4,76%
	not registered, but live together	-	-	9,52%
	Married (married)	68,18%	68,18%	57,14%
	We live separately	9,09%	-	9,52%
	divorced	9,09%	9,09%	9,52%
	widow (widower)	4,54%	13,68%	9,52%
	Children	no	9,09%	4,54%
yes	90,91%	95,46%	85,72%	
Are the parents still alive	no	45,47%	36,37%	33,34%
	One 3 parent is alive	31,81%	22,72%	38,09%
	yes	22,72%	36,40%	28,57%
Work	work full time	45,45%	31,82%	23,81%
	work part-time	22,73%	22,73%	19,04%
	looking for a job	13,64%	4,54%	9,52%
	not work & not looking for work	-	4,54%	14,28%
	retired	18,18%	31,82%	19,04%
Years since the establishment of diagnosis, on average		6,59	5,6	7,96
Years in remission, on average		4,49	4,5	6,07
Diagnosed stage	I	36,37%	27,27%	23,81%
	II	27,27%	36,37%	33,33%
	III	27,27%	18,18%	19,04%

	IV	9,09%	18,18%	19,04%
Relapses	There was no	85,72%	81,82%	86,36%
	He was	14,28%	18,18%	13,64%
Do you Take maintenance medication therapy	Yes	52,38%	40,90%	38,09%
	No.	47,62%	59,10%	61,91%

The responses to the questionnaires on tolerance to uncertainty, anxiety, FCR, inherent coping strategies, and personal characteristics were statistically processed, and the obtained data are presented in Table 2.

According to the Mann-Whitney test, there were significant differences ($p=0.05$) between the level of FCR for the group of Ukrainians and Israelis and for the group of Israelis and repatriates. No significant differences were found between the group of Ukrainians and repatriates.

Table 2. Results of statistical analysis of participants' responses by group

Indicator		A group of Ukrainians	A group of Israelis	Repatriates group
FCR level, average		19,45	12,57	19,24
Tolerance to uncertainty, average		4,28	6,7	4,4
Intolerance to uncertainty, average		6,04	4,5	5,7
Reactive anxiety, average		44,85	32,6	35,6
High level of reactive anxiety, number of participants		11	1	3
Personal anxiety, average		50,57	38,3	41,9
High level of personal anxiety, number of participants		14	3	6
Five-Factor Personality Inventory	Introversion, number of participants	3	2	1
	Extraversion, number of participants	3	5	6
	Antagonism, number of participants	-7	2	1
	Agreeableness, number of participants		8	9
	Impulsiveness, number of participants	1	1	-4
	Conscientiousness, number of participants	12	5	
	Emotional stability, number of participants	4	4	9
	Neuroticism, number of participants	7	3	2
Closedness to experience, number of participants		3	4	1
Openness to experience, number of participants		5	3	10

5.9 Results of the analysis of the answers of the elderly research participants

One elderly man and one elderly woman were randomly selected from each of the three groups (Ukrainians, Israelis, and repatriates) and described in detail psychological portrait.

After receiving the responses to the questionnaire and questionnaires, each participant was interviewed in order to assess their attitude to the disease and expectations about the possibility of cancer recurrence. For this purpose, the method of expert opinions (Stern et al., 2010) and a structured interview by Otto Kernberg (Kernberg, 1981) were used.

It was found that the Israeli elderly group had the lowest level of FCR, which was within the functional norm. Representatives of the Ukrainian elderly group had a bit higher level of FCR, but the Ukrainian woman's FCR was not dysfunctional, and the Ukrainian man's FCR was. Both elderly participants of the repatriates group had dysfunctional FCR and needed psychological help according to the results of the FCRI (Simard & Savard, 2015). At the same time, the level of FCR of women in all groups was lower than that of men (see Table 3).

Table 3. Fear of cancer recurrence according to FCRI-SF (in points).

Group	Women	Men
Ukrainians	16 +/- 1,24	22 +/- 2,16
Israelis	10 +/- 0,95	12 +/- 1,12
Repatriates	22 +/- 1,59	27 +/- 2,67

Let us consider in detail the results of each elderly participant from the three groups.

5.9.1 Ukrainian group

Participant 1

Ukrainian, 63 years old, breast cancer, stage III without recurrence, diagnosed 3 years ago, 2 years after treatment, currently not receiving supportive drug therapy. She has higher education, works full-time, lives in a regional city. She is married, has two adult children, one of her parents is alive.

Table 5. Quantitative characteristics for Participant 1

BFI 44	raw scores	transfer to 100 points
Introversion-Extraversion	- 26 average	56
Agreeableness/Antagonism	- 30 average	58
Conscientiousness/Impulsiveness	- 37 high	78
Emotional stability/Neuroticism	- 24 average	50
Openness/Closedness to experience	- 26 average	40

TAS

Intolerance to uncertainty – (raw 36) – above average.

Tolerance to uncertainty – (raw 26) – slightly below average.

FCRI-SF fear of cancer recurrence – 16 increased.

STAI

Reactive anxiety – 33 – moderate.

Personal anxiety – 45 – high.

BEFO

Cognitive: 4. Maintaining self-control. Description: an attempt is made to maintain balance and (emotional) self-control in front of others and in relation to oneself. Type – adaptive.

Emotional: 4. Optimism. Description: The belief that a difficult situation can be overcome. Type – adaptive.

Behavioural: 3. Active avoidance. Description: Trying not to think, she stopped focusing on problems in every possible way. Type – maladaptive.

Description: Participant 1 is characterised by self-control and responsibility, as well as perseverance in achieving results. Her anxiety is moderate and her tolerance to uncertainty is reduced. Participant 1 uses maladaptive behavioural coping strategies, but adaptive cognitive and emotional ones. She has not consulted a psychologist about her illness.

The Psychological conclusion from the interview: Participant 1 considers that she is doing well because with her type of cancer and grade (9 out of 9 on the Nottingham scale), the statistics are 26% survival after 2 years. She considers herself lucky to be in this percentage. She tries not to think about the future but limits herself too much in physical activity and nutrition, considering certain foods “harmful” for people with cancer experience. It is difficult for her to tolerate the uncertainty associated with the future. As a compensatory mechanism, she considers everything that differs from the worst-case scenario as a success. She would benefit from working with a psychologist, having psychoeducation, and learning more adaptive coping strategies would be helpful.

Participant 2

Ukrainian, 75 years old, stage III non-relapsed penile cancer, diagnosed 3 years ago, 3 years after treatment, currently not receiving supportive drug therapy. He has secondary specialised education (technical school), is retired, lives in a rural area. Married, has an adult child, parents are deceased.

Table 6. Quantitative characteristics for Participant 2

BFI 44	raw scores	transfer to 100 points
Introversion/Extraversion	- 23 average	47
Agreeableness/Antagonism	- 37 high	78
Conscientiousness/Impulsiveness	- 37 high	78
Emotional stability/Neuroticism	- 18 low	31
Openness/Closedness to experience	- 29 average	47

TAS

Intolerance of uncertainty – (raw28) – average.

Tolerance of uncertainty – (raw27) – slightly below average.

FCRI-SF fear of cancer recurrence – 22 high.

STAI

Reactive anxiety – 58 high.

Personal anxiety – 54 high.

BEFO

Cognitive: 9. Giving meaning Description: The disease is given meaning. It is perceived as an opportunity to change one's outlook on life and values. Type - partially adaptive.

Emotional: 3. Suppression of emotions. Description: suppression of emotions in oneself. Type – maladaptive.

Behavioural: 1. Activity as a distraction. Description: familiar activities are engaged in as a distraction. Type – partially adaptive.

Description: Participant 2 has a stable personality structure with a high degree of cooperation, affection, and respect for others, self-control, emotional stability, and self-criticism. However, he has a high level of FCR, high anxiety, and uses maladaptive or partially adaptive coping strategies. He has not consulted a psychologist about his illness.

The psychological conclusion from the interview: Participant 2 considers that he is doing well for his age and tries to find support from his family. However, he does not believe that he is cured of cancer and thinks a lot about the possibility of the disease returning. He has anxiety about the future, and his FCR level is dysfunctional. The experience of previous losses causes a certain lack of faith in medical treatment of cancer – his adult daughter died of cancer 6 years ago. Psychological help would be very useful for him.

5.9.2 Israeli group**Participant 3**

Israeli woman, 67 years old, stage IV non-recurrent uterine cancer, diagnosed 5 years and 5 months ago, 5 years since treatment, currently not receiving supportive drug therapy. She has a higher education, is retired, and lives in a regional city. She is married with two adult children, her parents are deceased.

Table 7. Quantitative characteristics for Participant 3

BFI 44	raw scores	transfer to 100 points
Introversion/Extraversion	- 19 low	34
Agreeableness/Antagonism	- 20 low	31
Conscientiousness/Impulsiveness	- 27 average	50
Emotional stability/Neuroticism	- 18 low	31
Openness/Closedness to experience	- 25 average	37

TAS

Intolerance to uncertainty – (raw 19) – slightly below average.

Tolerance to uncertainty – (raw 27) – slightly below average.

FCRI-SF fear of cancer recurrence- 10 low.

STAI

Reactive anxiety – 45 high.

Personal anxiety – 44 moderate.

BEFO

Cognitive: 5. Problem analysis. Description: Cognitive analysis of the disease and its consequences: recognition, careful consideration, decision-making. Type – adaptive.

Emotional: 5. Passive cooperation. Description: a person agrees to be cared for. A person feels in safe hands knowing that help is available and responsibility can be entrusted to specialists. Type – partially adaptive.

Behavioural: 7. Collaboration. Description: cooperation with significant people to overcome difficulties. Type – adaptive.

Description: Participant 3 has high emotional stability and self-sufficiency, practicality, and realism. Her tolerance for uncertainty is slightly below average. The level of FCR is low. All selected coping strategies are adaptive. She consulted a psychologist in connection with her treatment.

The psychological conclusion from the interview: Participant 3 has a personality profile with a strong trait of straightforwardness and intellectual self-esteem and has a high level of intelligence. She assesses her condition as quite satisfactory and uses problem analysis and cooperation in

difficult life situations. She trusts the medical care system, does not look for “alternative” ways of treatment, and is optimistic about the future. The increased anxiety may be related to her recent retirement. She does not tend to consider mythical causes of cancer.

Participant 4

Israeli male, 68 years old, stage IV leukaemia (had had recurrence), diagnosed 3 years ago, 2 years after treatment, currently receives supportive drug therapy. Higher education, retired, lives in the capital. He is married with three adult children, parents are deceased.

Table 8. Quantitative characteristics for Participant 4

BFI 44	raw scores	transfer to 100 points
Introversion/Extraversion	- 20 low	37
Agreeableness/Antagonism	- 21 low	33
Conscientiousness/Impulsiveness	- 24 average	42
Emotional stability/Neuroticism	- 18 low	31
Openness/Closedness to experience	- 24 average	34

TAS

Intolerance to uncertainty – (raw 35) - above average.
Tolerance to uncertainty – (raw28) - slightly below average.

FCRI-SF fear of cancer recurrence – 12 low.

STAI

Reactive anxiety – 29 – low.
Personal anxiety – 32 – moderate.

BEFO

Cognitive: 5. Simulation. Description: The disease is downplayed, denied, minimised, and ignored. Type - maladaptive.

Emotional 5. Passive cooperation. Description: a person agrees to be cared for. A person feels in safe hands knowing that help is available and responsibility can be entrusted to specialists. Type – partially adaptive.

Behavioural: 5. Constructive activities. Description: Something constructive is done, something is chosen as necessary, for example: the development of creative abilities, travelling, etc. (possibly for a long time). Type - partially adaptive.

Description: Participant 4 has a trait of straightforwardness and self-esteem, he is practical and realistic. Despite maladaptive cognitive coping, he uses partially adaptive strategies in the emotional and behavioural spheres. FCR level is functional. Trusts the medical system and cooperates with doctors. Has consulted a psychologist about the illness.

The psychological conclusion from the interview: Participant 4 considers that the disease does not limit his life, is just a part of life, and does not stop his activity according to his age. He would like to have more stability and confidence in the future, which correlates with the scores on tolerance to uncertainty - below average. He tries to rely on God for what is destined for him in life but follows all the recommendations of official medicine, does not miss medical examinations, and takes care of his health.

5.9.3 Repatriates group

Participant 5

Female repatriate (32 years in Israel), 64 years old, breast cancer,

stage IV, non-recurrent, diagnosed 4 years 3 months ago, 4 years after treatment, she currently receives supportive drug therapy. She has higher education, works part-time, lives in a regional city. The woman is married and has two adult children, one of the parents is alive.

Table 9. Quantitative characteristics for Participant 5

BFI 44	raw scores	transfer to 100 points
Introversion/Extraversion	- 28 average	62
Agreeableness/Antagonism	- 42 high	92
Conscientiousness/Impulsiveness	- 30 high	69
Emotional stability/Neuroticism	- 18 low	31
Openness/Closedness to experience	- 28 average	45

TAS

Intolerance to uncertainty – (raw25) – average.
Tolerance to uncertainty – (raw25) – below average.

FCRI-SF fear of cancer recurrence – 22 high.

STAI

Reactive anxiety – 27 – low.
Personal anxiety – 38 – moderate.

BEFO

Cognitive: 4. Maintaining self-control. Description: an attempt is made to maintain balance and (emotional) self-control in relation to others and to oneself. Type – adaptive.

Emotional 4. Optimism. Description: The belief that a difficult situation can be overcome. Type – adaptive.

Behavioural: 1. Activities as distractions. Daily or habitual activities are used as distractions. Type – partially adaptive.

Description: Participant 5 has a personality structure with a high degree of cooperation, affection, and respect for others, self-control, emotional stability, and self-criticism. She has not been to a psychologist and does not consider the time spent with a psychologist to be useful.

The psychological conclusion from the interview: Participant 5 considers that distracting herself from the disease and focusing on life will help her cope. She perceives the possibility of recurrence as her own guilt, letting down her loved ones.

Thoughts of such a possibility are driven away, but they return, which causes psychological discomfort and is probably the reason for the high level of FCR, especially due to the need to take care of her old mother.

Participant 6

Male repatriate (3 years in Israel), 60 years old, multiple myeloma, stage IV without relapse, diagnosed 4 years ago, 2.5 years after treatment, he currently receives supportive drug therapy. He has a secondary specialised education (technical school), is neither working nor looking for a job, lives in a regional city. He is married, has two adult children, one of his parents is alive.

Table 10. Quantitative characteristics for Participant 6

BFI 44	raw scores	transfer to 100 points
Introversion/Extraversion	- 23 average	47
Agreeableness/Antagonism	- 27 average	50
Conscientiousness/Impulsiveness	- 38 high	81

Emotional stability/Neuroticism	- 26 average	56
Openness/Closedness to experience	- 24 low	34

TAS

Intolerance of uncertainty – (raw34) -above average.

Tolerance of uncertainty (raw26) - slightly below average.

FCRI-SF Fear of cancer recurrence – 27 high.

STAI

Reactive anxiety – 46 – high.

Personal anxiety – 43 – moderate.

BEFO

Cognitive: 4. Maintaining self-control. Description: an attempt is made to maintain balance and (emotional) self-control in relation to others and to oneself. Type - adaptive.

Emotional: 5. Passive cooperation. Description: a person allows others to take care of him/herself. A person feels in safe hands knowing that help is available and responsibility can be entrusted to specialists. Type - partially adaptive.

Behavioural: 3. Active avoidance. Description: Tries not to think, stops focusing on their problems in every possible way. Type – maladaptive.

Description: Participant 6 demonstrated traits of emotional stability, but at the same time has some depression and self-criticism. He is characterised by conservatism, excessive realism, and avoidance of talking about feelings. He does not treat stressful situations as opportunities for growth. FCR is dysfunctional, even paralysing, and assesses his psychological state as severe, but has not consulted a psychologist.

The psychological conclusion from the interview: Participant 6 considers that his illness severely limits his ability to work. He is also concerned about the need to care for his sick old mother, which does not allow him to take care of himself sufficiently. He would like more stability and certainty in his life. He tries not to think about troubles, which only increases his anxiety. He cannot cope with the uncertainty that accompanies his recent repatriation and cancer diagnosis. He has a high level of anxiety and catastrophises the future. Psychological correction is recommended

6 Discussion

According to the statistical data, it can be mentioned that the participants in the Israeli group are the most tolerant of uncertainty on average, the least anxious, and have the lowest FCR on average. Due to the limited number of participants in each group, we cannot make broad conclusions about characteristic personality traits, inherent to all members of each group. However, it is interesting to note that among the repatriates there were the most participants with a pronounced personality trait of Openness to Experience - almost half, 47.6%.

Regarding the data on FCR, it was found that there were no statistically significant differences between the group of Ukrainians and repatriates. We acknowledge that repatriates may retain elements of their country of origin's cultural context to some degree, and, like Ukrainians, they are not inclined to seek psychological help. Only representatives of the Israeli group of cancer patients sought psychological assistance. Thus, cultural peculiarities play a significant role in the patient's self-perception of the cancer diagnosis, identifying his/her psychological distress, feelings of suffering, loss, and uncertainty.

This finding aligns with previous research which has similarly observed that an individual's culture exerts a significant influence on their sense of identity, outlook on life, and value systems. For example, Surbone states that culture provides each

person with a reference point for interpreting the external world and establishing relationships with it. Everyone relies on their culture to make sense of what is happening to them, especially during difficult or traumatic times in their lives, such as a serious illness (Surbone, 2004).

Cultures differ in terms of the norms and belief systems that determine attitudes towards illness. Myths about cancer are still widespread in Ukraine. For instance, the disease may be attributed to negative thinking patterns, unresolved grudges, or other emotional experiences. There is also a widespread belief that cancer is a death sentence. Therefore, those who have survived the disease and are currently in remission are incredibly lucky, and in order not to anger fate, they need to be happy and grateful. Most of the information provided by dubious resources about the causes of cancer and, accordingly, treatment options, differs significantly from the scientific approach outlined in the book "The Emperor of All Diseases" (Mukherjee Siddhartha, 2013). Instead, a variety of mythical causes of cancer are promoted, which confuse patients and make them feel guilty for getting sick.

Five mythical "causes" of cancer diseases were identified, such as:

1. Behaviour type C: non-aggressive, patient, dependent, insecure, lonely and guilty people will definitely get cancer;
2. Unresolved life problems, a series of stressful situations from six months to a year and a half, a prolonged feeling of powerlessness – a person unconsciously launches a strategy of self-destruction;
3. Psychological carcinogens that have caused a "breakdown" of the immune system (life problems, impaired expression of emotions, conflicts, resentment and despair);
4. Punishment for sins;
5. The collusion of pharmaceutical companies to make excessive profits. As well as the "secret knowledge" of simple treatments that they hide.

Here are examples for each of the mythical "causes".

First, behaviour type C: "...some studies have shown that people with the so-called C personality type (or 'C behaviour pattern') may be at greater risk of developing cancer" (Your Health, online journal, 2015, an online resource).

For the second "cause", it is worth recalling the dubious Ukrainian doctor of philosophy V.L. Matrenytskyi, who in his book "Carcinogenic Mind" repeats the false (and repeatedly refuted) statements of "researchers" of the 80s of the last century: "The basis of the disease is the inability, of a person to cope with the problems of life, psychological trauma and intrapersonal conflicts arising from unmet needs" (Matrenytskyi, 2017).

An example of the third "cause" of cancer is the advertising of "psychosomatologists" who offer to "work through your resentments" in order to heal (Qui.help, an online resource). Websites that offer miraculous potions to help you regain your health as soon as possible can also be mentioned: The "Forgiveness" essential oil blend, which, according to the seller, "frees you from resentment, negative thoughts, emotions, and memories" for approximately 100 \$. (Advertising of the miraculous oil blend "Forgiveness", an online resource).

The fourth "cause", punishment for sins, is offered by fortune tellers of different levels, who are ready to tell cancer patients what exactly sins they have committed. For example, a TikTok fortune teller will tell you why you are being punished by the disease, and if you do not remember such sins, she will prescribe ginkgo biloba to improve your memory (Witches and fortune tellers, an online resource).

The fifth "cause" is demonstrated by an online resource selling food supplements: "Among the leaders in anti-cancer protection, lycopene is the first to be found, as it can enhance the anti-cancer

effect of vitamin D and also inhibit the transformation of normal cells into cancerous ones” (How to protect yourself from cancer, an online resource).

But some “sellers” go even further - they offer to starve cancer to death. That is, limit your diet by acquiring from them a detailed description of the secret knowledge of what not to eat and how to add sodium carbonate to your diet (Anti-Cancer Course, an online resource).

In Israel, certain categories of society also tend to believe myths about cancer. These are more often Orthodox Jews and representatives of the rural Arab population. Secular Israeli society relies more on evidence-based medicine and adequate psychological support. Another difference between Israelis and Ukrainians is that a much larger amount of Israeli cancer patients have examples of successful cancer overcoming among their acquaintances and therefore are more optimistic about future.

In the case of repatriates, one study (Zeissig et al., 2015), explored the utilization of psychosocial and information services by immigrant survivors of breast, colorectal, and prostate cancer in comparison to non-immigrant survivors. The study revealed that cultural disparities significantly affect the perception of these services. But the most interesting thing is that the authors propose stratifying not by immigration status as defined by the census, but by cultural background. In light of this perspective, we examine the distinctions between repatriates and native Israelis in our analysis.

7 Research limitations

The statistical differences in FCR levels between cancer survivors in Israeli, Ukrainian, and the repatriate group should be further examined by testing the results of this study on a larger sample size. But preliminarily, it can be seen that in a country with a high level of social protection (such as Israel) and access to psycho-oncological support, FCR among cancer survivors is lower than in a country with less support.

At the same time, repatriates demonstrated the highest level of FCR, even while living in Israel. This can be explained by the fact that culturally they belong more to the Ukrainian society, due to its strong adherence to conventional medicine and inclination towards traditional beliefs. At the same time, they face all the known problems of immigrants. They do not know how and where to get help, greater uncertainty about their future compared to native residents, and partly language problems.

In the present study, it is not possible to determine whether the Israeli participants' FCR levels were elevated before they sought psychological support. Future research should examine participants' FCR levels before and after receiving psychosocial support.

8 Conclusions

The results obtained in the presented study, which was preliminary, indicated that there were differences in the self-perception of their illness and their future between cancer survivors in Ukraine and Israel. The providing of adequate social and psychological support and treatment (based on the example of Israeli approach) could reduce the FCR level. For repatriates, a cancer diagnosis is perceived as an additional life challenge, and even after completion of treatment, this increases the feeling of lack of control and uncertainty about the future.

Consideration of the specific cultural context of reactions to cancer and coping strategies is vital for the development of effective psychosocial interventions that should be adapted to the cultural background of patients and should also take into account the inherent conservatism of elderly people concerning coping strategies.

Individuals who have received a cancer diagnosis employ conventional coping strategies and discover additional, more

effective methods to adapt to their illness, overcome it, and return to a full life. We assume that there is a prospect of psychological support for cancer patients in this area. However, for elderly people, changes are usually much slower. Therefore, the objective is to assist them in effectively integrating their extensive life experiences of dealing with challenges. This, in turn, will aid them in rebuilding self-assurance, emotional strength, and ultimately enhance their quality of life.

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Appendix:

Questionnaire of the research participant:

1. How old are you now? _____
2. Gender:
 - female
 - male
3. Place of residence:
 - the capital regional
 - city rural area
4. Education:
 - incomplete secondary - completed 7-8 (now 9) grades of school
 - secondary - completed 10 (now 11) grades of school
 - secondary specialised (technical school, college)
 - incomplete higher education (at least 2 years of university)
 - superior
 - second (third and more) higher
 - academic degree (PhD, Doctor of Science)
5. Marital status:
 - single, never married, never been married
 - not registered, but live together
 - married (married)
 - We live separately but are not divorced
 - divorced (divorced)
 - widower (widow)
6. Do you have children?
 - do not have
 - I have how many children (number) _____
7. Are your parents still alive?
 - yes
 - no
 - one of the parents is alive
8. Work:
 - I work full time
 - I work part-time
 - looking for a job
 - not working and not looking for a job retired
 - Other (what exactly?) _____
9. Type of oncology:
 - breast cancer
 - leukaemia
 - lymphoma
 - bowel cancer
 - skin cancer
 - bladder cancer
 - thyroid cancer
 - melanoma
 - uterine cancer
 - prostate cancer
 - Other (namely) _____
10. The stage that was diagnosed:
 - I
 - II
 - III
 - IV
11. Relapses:
 - was not
 - was
12. Duration of remission (years) _____
13. How many years have passed since the diagnosis of cancer? _____
14. Are you taking maintenance medication?
 - yes
 - no
15. Have you ever sought help from a psychologist, social worker, or psychotherapist?
 - yes
 - no

Primary Paper Section: F

Secondary Paper Section: FD, FL