

Life forms after cancer remission following treatment and disposal of medical waste

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Abstract. Our research discusses the life forms after the remission of cancer following treatment and disposal of medical waste. The semi-structured interviews conducted with the surveyed individuals who are sick and in remission help us understand their perception of themselves and the future of their family relationships during the illness process. The data collected through face-to-face interviews, WhatsApp, and questionnaires reveal that the surveyed individuals acquire new identities. The majority of respondents declare that their personalities have evolved positively, while others have a negative outlook on their cancer experience. This could be attributed to various factors influencing the development of this perception. We observe a certain intertwining and unraveling of our surveyed individuals' relationships with their surroundings. There is a weakening of sibling bonds, whereas marital bonds are strengthened, and new connections are formed with strangers throughout the care process for our surveyed individuals. Family relationships contribute to the health outcomes of cancer patients, including their remission or recurrence. The data from our research unveil the respondents' reactions to medical waste as a sign of remission.

Keyword: Crumbling, family ties, experience, life form, social connections, chronic illness, remission.

1. Introduction:

The duration of a patient's experience with cancer can extend for months or even years, which has taken cancer out of its traditional medical framework and classified it as a chronic illness. Some diseases have deviated from their initial trajectory, as the patient has acquired a new status known as "sick but healthy" or in remission, which has influenced the sociological analysis of chronic illness [1]. The influences of cancer on the lives of individuals affected by this disease require attention from sociologists [2].

Studies on life after cancer have started gaining significance as the number of people who have experienced cancer became evident. A series of research has been conducted on the lives of cancer survivors after their remission and the social, economic, and professional challenges they may face in returning to their normal lives after a long pause in all activities due to their experience with cancer. During the remission stage, the disease somewhat stagnates because of the uncertainty and fear of a relapse [3]. With the advent of chemotherapy, remission is officially defined as a temporary disappearance of symptoms [4], and the complete healing of cancer can only be confirmed if there is no recurrence during the monitoring phase [5].

The process of battling cancer from discovery to remission represents a phase of rupture between two stages of the cancer survivor's life: pre-cancer and post-cancer. During this stage of life, the person with cancer also faces a set of social, economic, and relational constraints. In fact, the relational aspect of the person affected by cancer is crucial in every stage of the medical treatment process, from discovery to remission. Our interviews with oncologists show that the lifestyle and social circle of a person in remission can contribute to a cancer relapse. Hence, the importance of studying the remission phase. This is why we seek, through our study, to shed light on the influences of social relationships on individuals who have experienced cancer in the Moroccan context.

This study primarily focuses on sociological research conducted on the post-cancer phase and the classification of cancer as a chronic illness due to the increased rates of recurrence. Secondly, our work aims to reveal the results of our study on life forms after cancer remission. Lastly, we proceed to analyze the data

collected from interviews and questionnaires administered to patients or individuals in remission. This final section includes different personalities undergoing treatment or in remission, the role of family relationships in the recovery process of cancer patients, and the respondents' perceptions of medical products after their remission.

2. Methodology:

We conduct our research primarily using a qualitative approach. Semi-structured interviews allow us to capture the feelings of the interviewee and their perception of their life during the remission phase. Our investigation covers Casablanca, the metropolis of Morocco. The choice of this city is based on the fact that several public and private cancer care institutions are located in Casablanca, and some cancer patients living outside Casablanca come to these establishments for treatment. The semi-structured interviews are conducted in public and private hospitals, as well as at the homes of the participants. Additionally, we also employ a quantitative approach using a questionnaire as a complementary tool to explore the correlation between the participants' social identifiers and their perceptions of their experiences with cancer.

Our study population consists of sixty participants of both genders, ranging in age from 18 to 60 years and above. The participants include four women with rectal cancer, two of whom have experienced a recurrence; twenty women with various stages of breast cancer and varying durations of remission; five women with carcinoma; one woman and two men with acute myeloblastic leukemia (AML) in a metastatic state. Fifteen men have prostate cancer, with one participant having undergone testicle removal and experiencing a recurrence in the coccyx area. Five men have lung cancer at different stages of the disease, and four men and two women have pancreatic cancer. Two women have uterine cancer, and one woman and four men have stomach cancer (see Figures 1 and 2). Due to the health condition of some participants requiring a specific methodological protocol, we utilize audio interviews. We record the questions in audio format and send them to the participants via WhatsApp, allowing them to choose a suitable time to respond.

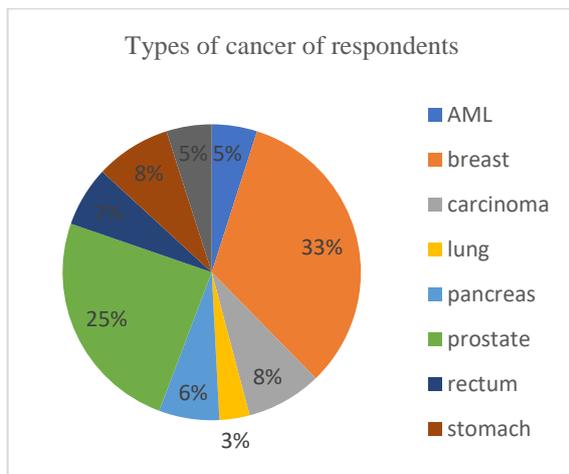


Figure 1: Percentage of cancer types by number of respondents

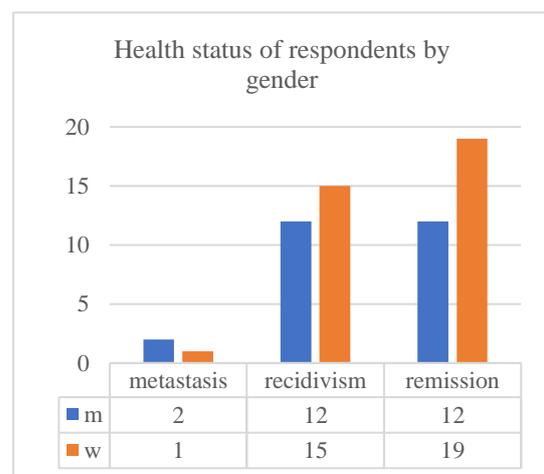


Figure 2: Health status of respondents by gender

3. Data Analysis:

The obtained results indicate that the majority of participants in our research respond affirmatively to the question "Has cancer changed your life?" with a percentage of 87%, while 13% respond negatively (see Figure 3). However, after cross-referencing the responses to the same question with the variable "gender," the percentage of women confirming to have experienced changes is 54%, whereas the percentage for men is 46% (see Figure 4).

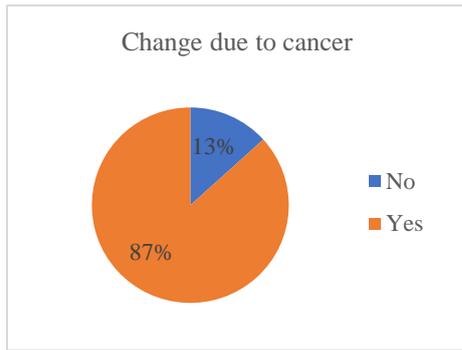


Figure3: Percentage of respondents to the question of their change following their cancer

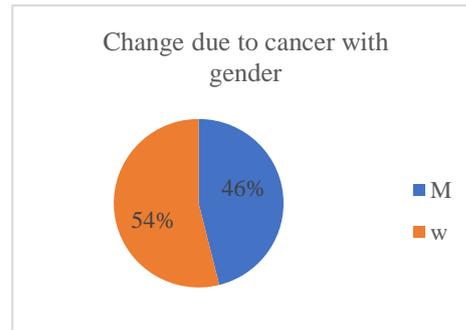


Figure4: Percentage of respondents crossing to the question of their change following them cancer with gender

The intersection of "yes" responses to the question "Has cancer changed your life?" with marital status shows that 67% of individuals who confirm a life change following their experience with cancer are married. Divorced individuals come in second at 16%, followed by widowed individuals at 10%, while 7% of the survey respondents confirm that their experience with cancer has not changed anything in their life (see Figure 5).

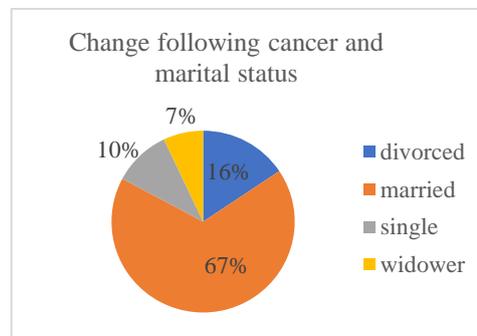


Figure 5: Percentage of cross-referencing responses to the question of change following cancer, based on marital statuses.

The changes caused by cancer are perceived as either positive or negative changes depending on the respondents and the type of cancer, the stage, and the resulting consequences of the disease. As mentioned in Figure 6, for 45% of the 194 participants, positive change relates to their perception of things; 23% of the respondents confirm that their personality has become stronger. The desire to live life represents 12%, while spirituality and no change account for 10% of the responses to the question "Has cancer changed your life?" (See Figure 6).

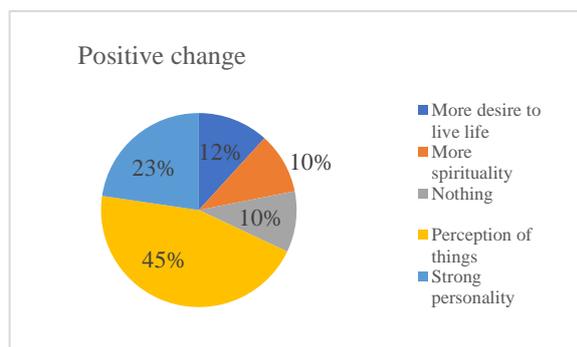


Figure 6: Percentage of participants' perceptions of positive change after their experiences with cancer

43% of respondents see that they have not experienced any changes following their experiences with cancer. While negative changes, according to the respondents, manifest in their activities, 33% perceive less freedom in their daily actions. Meanwhile, 16% confirm that their personality has become more fragile after being affected by cancer (see Figure 7).

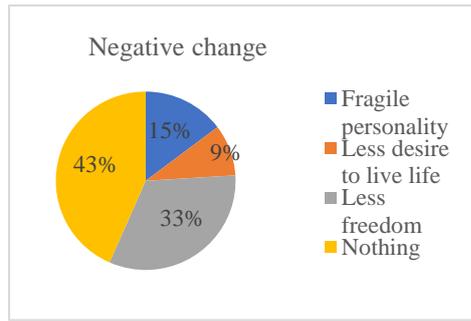


Figure 7: Percentage of participants' perceptions regarding negative change after their experiences with cancer.

On the side of family relationships, the responses to the question "How do you see your relationships with your family?" vary depending on the marital status of the person affected by cancer. According to some married respondents, family relationships experience a significant absence or tension. On the other hand, others perceive their relationships with their families as strong or solid. For singles, their responses indicate that their family relationships are stronger rather than absent. Widowed and divorced individuals view their family relationships as peaceful (see figure 8).

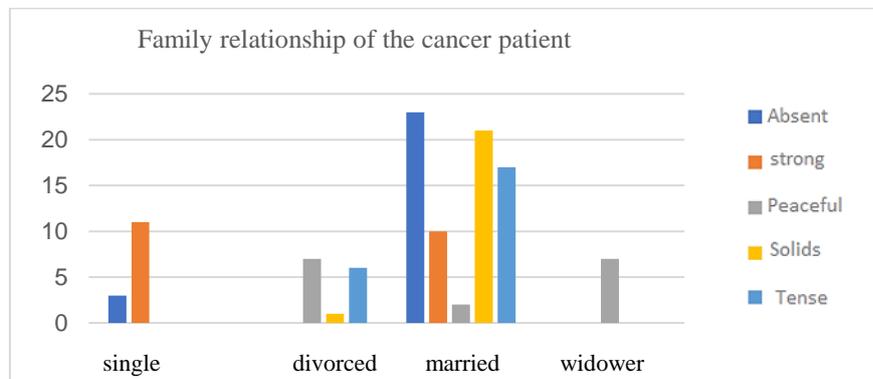


Figure 8: Family relationship from the participants' perspective based on their marital statuses.

4. Results:

The process of anticancer medicalization represents a continuous interaction between the patient and their surroundings. During this process, the patient continuously changes their behavior and attitude [6]. The pressure of critical circumstances related to the illness shakes the way some people think and perceive things. The patient begins to question their behaviors prior to being affected by cancer. The sudden physical and psychological sufferings during the oncological treatment process represent a biographical shock [7]. Our fieldwork shows that the experience with the illness prompts our participants to question their behaviors and thoughts prior to the illness, in order to reconstruct them in their favor.

Some interviewees confirm seeing the beneficial side of their experience with cancer, despite their suffering. The paradox between being affected by a deadly disease and the desire to live shows that certain critical events allow for a reidentification of the afflicted individual. This represents a paradox in the attitudes of people with a serious illness [8]. The data collected during our research show that the experience with cancer leads to a sort of categorization of individuals after their remission; there are those whose experience has resulted in a stronger personality. Khadija changed her behavior following her experience with cancer and confirms that her personality changed by 80%. Before her illness, Khadija's shyness led her to remain silent despite her suffering. However, her experience with cancer constituted a turning point and a starting point towards a new personality. Khadija begins to defend herself, to have the courage to choose what pleases her, and to prioritize her happiness and well-being, as a patient who invents her own rules to cope with the constraints and influences of her illness and surroundings [9]. "Now, if something pleases me, I do it, otherwise I don't. Before, I tried to make others comfortable at the expense of my own comfort, and it was among the causes of my illness" (Khadija, breast cancer remission).

Following an experience with illness, the person becomes the master of their choices, aware of readjusting their life as they see fit [10]. Their experience brings about a profound change in their identity. Moreover, this experience teaches them to let go, to no longer strive to appear in good condition to please others "*currently, it is enough for me to be in good condition, to feel good, to keep close to me the people I want to be close to*" (Sara, stomach cancer remission). The ordeal endured with cancer awakens in the person, after their remission, the desire to take control of their life, to no longer be manipulated by others, and to prioritize themselves over others. The change in mentality of certain patients and their commitment played a decisive role in their journey towards recovery [11]. Similarly, the experience with cancer turns the affected person into a negotiating actor, which can contribute to changes in the anticancer treatment protocol [12]. These participants view the change in their personalities positively; the experience with cancer brings out the hidden qualities of the person affected by this disease [13].

However, living without responsibilities, without commitments worsens the occurrence of cancer and makes it more critical. Saida regrets not having taken her health seriously; she experienced a recurrence in the rectum. "*I did not take the issue of my goiters seriously before, which caused my cancer*" (Saida, thyroid cancer with rectal recurrence). The experience with cancer represents a downfall for these irresponsible individuals, causing them to lose the will to live, especially in the absence of family support.

The data collected in the field show that the person, after their remission from cancer, forges a new identity; they question all their previous behaviors and begin to reduce or eliminate certain ones. Living through a painful experience makes the patient, whether in remission or not, either lenient, allowing themselves to be manipulated by others or circumstances, or rebellious, choosing to be the master of their life and choices [14].



Figure 9: Respondents' personalities

The perception of the patient, their health condition, and the way they experience their life has an impact on their future and their healing process. According to our survey, the reactions of sick or recovering individuals are diverse; each person reacts based on their health condition, type of cancer, personality, and sociocultural background [15].

5. Discussion:

5.1 Family Relationships of Cancer Patients:

The patient's family plays a crucial role in the life of the patient, especially those with cancer. From the moment the disease is diagnosed, the affected person feels disoriented and confused, which necessitates the support and presence of their family and loved ones. This presence undoubtedly serves as a source of moral and material support, but conversely, if absent, the family can become an obstacle in the patient's life reconstruction after remission.

The case of Fatima represents an example of the decline in the role of siblings: "*I found no support from my relatives. My illness allowed me to see many things. I received support from strangers, not my family*" (Fatima, metastasis of acute leukemia). Fatima confirms that none of her family members supported her, neither morally nor materially, despite their high socioeconomic status. Instead, she received support from other foreign individuals: "*I only found my friends and their families by my side*" (Fatima). Some bonds crumble or deteriorate

completely; however, the experience of illness allows the creation of new connections and strengthens existing ones.

Two cases from our qualitative survey show two forms of family relationships: weakening of sibling bonds and strengthening of marital ties. Saida was disappointed by the absence of her brothers and sisters during her battle with cancer. She remembers with bitterness their ingratitude and lack of solidarity. The deterioration of social ties is evident in the lack of reciprocal exchange between loved ones [16]. Saida's attitude oscillates between resentment and grief, while love and admiration are directed towards her husband, who supported her throughout her illness. In turn, Nadia reveals her relationships with her family. Their behavior during her cancer crisis was not as she expected: *"I didn't find what I was hoping for from them. My family, my sisters were not by my side; they acted as if I wasn't sick or had never experienced cancer"* (Nadia, breast cancer). On the other hand, her husband did not repudiate her when the physical consequences of treatment became apparent; instead, he cherished and showered her with affection to help her overcome the painful stage of treatments.

The collected data present other forms of social relationships. Karima's relationship with her family is strongly supportive. She confirms that her family provided her with support and solace. However, when discussing her relationship with her family, Karima mentions an important point: *"My family is the one I consider my true family"* (Karima, breast cancer). Indeed, Karima lost her parents at a young age, but she was able to create new connections and establish a new family. This shows that sometimes strangers can replace the biological family and assume the role of a chosen family. Karima emphasizes that a person with cancer or any other illness should live in a healthy environment with loved ones who can provide support and encouragement to overcome the disease: *"The patient's environment plays a significant role"* (Karima).

The support network of cancer patients encompasses a variety of relationships. According to some, their relationships with family members have become strong, while others have weak and fragile family ties. They struggled to maintain healthy relationships with their families. Some individuals state that they found moral and material support from friends or strangers. Certain bonds dissolve and crumble, while others become fortified and strengthened. The structure of social and familial bonds of cancer patients undergoes reconfiguration due to the occurrence of cancer [17], which can contribute to remission or recurrence of the disease.

5.2 Visual Representations of Medical Products after Cancer Remission:

The protocol for anticancer treatments requires a percutaneous implantable chamber (PIC) for chemotherapy. This PIC is implanted at the upper part of the chest near the neck; it must remain in place throughout the duration of the medical treatment, which can last five years or more depending on the patient's case [18].

Our participants emphasize that the presence of the chamber symbolizes the disease. In fact, according to Figure 4, the participants in our study confirm that they feel less free; their daily activities are hindered with the PIC; they have to be careful with their movements to avoid damaging this medical tool. Similarly, this tool causes discomfort for the patients. "I can't carry heavy things because the chamber hurts me," says Mohamed, who has prostate cancer with a recurrence in the coccyx. Malika explains that she cannot perform her work freely because she fears displacing the chamber from its position. She adds that she patiently awaits the completion of her treatment to have the chamber removed. "I feel constrained by this chamber," she says (Malika, breast cancer). This participant is in the monitoring phase, with two years remaining to complete her anticancer treatment [19].

Data collected from a number of participants in remission show that the removal of the PIC represents liberation from the cancerous disease and a return to normal life. Similarly, participants in remission get rid of medical products as a sign of recovery. After her remission, Karima gave her medications to the nearest pharmacy. "I collected all the medications I used and gave them to the pharmacy. I don't want to see them anymore. I want to forget my suffering with cancer," she says (Karima, breast cancer). Individuals who have experienced cancer develop negative representations during their treatment process. This is reflected in their behaviors after remission.

6. Conclusion:

Cancer does not affect everyone in the same way. Several factors come into play. The disposition of certain characteristics, charisma, attitude, shapes a strong personality resistant to severe circumstances, which helps overcome the sufferings of cancer and defeat it. We can conclude that each participant is a unique case, with a unique trajectory and a unique life that can either remain the same as before cancer or take a different path.

Interactions, regardless of their form, during the illness represent an essential modality that allows the patient, after remission, to return to their daily life. Along the cancer patient's trajectory, their relationships with those around them undergo a shift between erosion and reinforcement; they form and dissolve based on the patient's interactions with their social circle. The forms of family relationships, the strength or disintegration of family ties, also influence the process of cancer remission. Therefore, we can confirm that the social interactions of patients or individuals in remission play a role in their reintegration into daily life after remission. However, the experience with cancer can leave visible or invisible, physical or psychological consequences. The reintegration of a person after cancer remission can be complete, partial, or nonexistent. This requires shedding light on the essential factors in the reintegration or disintegration of that person.

7. Acknowledgment:

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