Psychological impact of BRCA Genetic Counseling: Decision Making and support for women with risk of hereditary cancer

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Introduction

Oncological disease, in all its phases, generates a sudden collapse of the human body **ground**. It is an experience of loss: of the physical integrity (the id-function of the self), of the family and social roles (the personality-function of the Self), of the directionality towards which to move (the ego-function of the Self) (Spagnuolo Lobb, 2005). About 5-10% of all breast cancer cases are attributable to germline mutations in BRCA1 or BRCA2 genes. Another type of cancer associated with germline mutations in the BRCA1 and BRCA2 tumor suppressor genes, is ovarian cancer.

Positive results in the genetic test may produce important changes in the way patients perceive themselves and their family, it may:

- have effects on personal identity,
- change body image,
- generate a sense of guilty towards family,
- generate a feeling of indeterminacy, depressive mood and fear of getting sick.

This is why **Oncogenetic Counseling** requires an interdisciplinary intervention: the contribution of psychology is part of an integrated work, essential to prevent and manage dysfunctional psychological reactions to the genetic test

Methodology

The aim of this intervention-research is to identify how socio-demographic and psychological variables influence the **decision making** between prophylactic surgery actions (prophylactic salpingo-oophorectomy and/or prophylactic mastectomy) and intensive instrumental surveillance; to evaluate the efficacy of psychotherapeutic support increasing awareness about their own therapeutic and existential choices.

This is a longitudinal study with 4 measurements: **Time0 - Pre-test** – patients receive informations about the gene test, the aim is to assess their present condition; **Time1 - Post-test**, patients receive the gene test's result, individual psychotherapeutic support starts; **Time2** (after 6 months) to evaluate the efficacy of psychotherapeutic support; **Time3** (after 12 months) the psychotherapeutic support ends, the aim is to evaluate the efficacy of the procedure comparing who participated and who did not participate.

The psychometric instruments used at each measurement are: **Distress thermometer** and **Problem checklist**, a self-report measure using an 11-point scale from 0 (no distress) to 10 (extreme distress). On the same page is an associated problem checklist, which asks whether the indicated level of distress is related to practical, family, emotional, spiritual or religious, or physical concerns; **DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult** assesses 13 psychiatric domains: depression, anger, mania, anxiety, somatic symptoms, suicidal ideation, psychosis, sleep problems, memory, repetitive thoughts and behaviors, dissociation, personality functioning, and substance use.

Results

The study, still in progress, has currently involved a group of 24 cancer patients (all women; average age 52 ± 9). Inclusion criteria were: age of 18 years or older; lack of neurodegenerative disorders; knowledge of the diagnosis.

The measures were completed by the patients during the first visit. The completion of the questionnaires required about 20 minutes and was made during the first psychological consultation.

The frequency and distribution of the distress thermometer (DT) scores were analyzed based on the cut-offs indicated in the literature, to discriminate between people with different levels of psychological distress. Similarly, Level One positive scores for symptoms were examined to explore the risk for psychiatric disorders.

21% of patients showed clinically significant levels of distress (DT cut-off score ≥ 4). Also, participants with critical levels of distress (DT cut-off score ≥ 7) were 54.%.

On the Level One, the results indicated that the most frequently reported problem among participants was anxiety (84%), followed by manic symptoms (54%), sleep alterations (54%) and depression (33%)

It may be interesting to note that the types of problems most frequently reported belongs to a psychological dimension, rather than a physical domain, which highlights that the psychological effects of the clinical condition was very important for the participants.

Correlation analyses globally showed a positive pattern of associations between DT scores and Level One scores. Of particular interest, the **total DT scores** were associated with symptoms of **depression** ($r = .477$, $p < 0.01$) and **mania** ($r = .514$, $p < 0.01$). Also, **suicidal ideation** was positively correlated with DT indicators concerning **practical problems** ($r = .552$, $p < 0.01$), **financial problems** ($r = .406$, $p < 0.01$) and **loss of interest in usual activities** ($r = .552$, $p < 0.01$).

Levels of distress

Discussion and conclusions

This study is the first step towards involving patients in psychotherapeutic support experiences, producing statistically more significant results about the **distress** that, as well as negatively influences the patient's quality of life, can also have effects on **decision-making**: a critical level of distress can induce not aware decisions about preventive behavior (Fielden et al, 2017). Awareness is always a function of the relationship, this is why a psychological assessment is essential from the beginning of genetic counseling. as well as women with risk of hereditary cancer can have the opportunity for timely discussion of their options with a psychotherapist, with the aim of getting back the **next** towards which life goes (Spagnuolo Lobb, 2013).

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