

Quality of life in mental health services with a focus on psychiatric rehabilitation practice

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Summary. Only recently the interest in the quality of life (QoL) has gained prominence in mental health practice with respect to other medical disciplines, such as oncology or cardiology, perhaps because the QoL measures were considered as tautological and largely overlapping with measures of psychopathology. Moreover, most of the recognized components of QoL represent the main areas of psychiatric intervention. For example, psychological functioning impairment represents the main area of psychotherapeutic and psychopharmacological interventions, social functioning impairment the main area of rehabilitation intervention. In addition, measures of QoL in psychiatric patients may be biased by some aspects of the disease, including impaired evaluation capacity or decreased expectations. Nowadays, QoL issues in relation to mental health care are especially relevant with regard to part of evaluation of treatment outcomes. Suggestions for the choice of the most appropriate QoL instruments for research and routine evaluation in mental health care are given.

Key words: quality of life, health services, mental health services, psychiatric rehabilitation.

Riassunto (*Qualità della vita nei servizi di salute mentale con un particolare focus sui servizi riabilitativi*). L'interesse per la valutazione della qualità di vita (QoL) nella pratica dei servizi di salute mentale è più recente rispetto ad altre discipline, come l'oncologia o la cardiologia, forse perché considerato un approccio non particolarmente innovativo in quanto la valutazione di diversi aspetti psicologici dei più comuni strumenti di misura della qualità di vita sono simili o identici a quelli che si trovano nelle più comuni scale psicopatologiche. Inoltre, molte dimensioni della qualità di vita rappresentano le principali aree di intervento in psichiatria, in particolare le sofferenze psicologiche della psicoterapia e della psicofarmacologia, il funzionamento sociale della riabilitazione psichiatrica. Ancora, in psichiatria un problema rispetto ad altri campi della medicina è che le valutazioni soggettive dei pazienti possono essere influenzate da aspetti collegati agli stessi disturbi mentali, incluse la compromissione cognitiva, le condizioni di vita sociali svantaggiate e le basse aspettative. Oggi, la qualità di vita è considerata il principale esito dei servizi di salute mentale. Vengono dati suggerimenti sulla scelta dei migliori strumenti di valutazione della qualità di vita in situazioni di ricerca e di applicazione nella routine dei servizi di salute mentale.

Parole chiave: qualità di vita, servizi sanitari, servizi di salute mentale, riabilitazione psichiatrica.

"...attention to QoL rather than only symptoms and signs of [mental] disease can enable the health care providers to truly add life to years and not only years to life" Debasish Basu, 2004.

INTRODUCTION

Although quality of life (QoL) has been measured for several decades, experts in this field have held various view-points on how to define the concept. In the health care field, recent years have brought greater convergence of opinion with respect to some fundamental aspects, with an increasing recognition of the importance of patient's subjective point of view, which had been neglected by medicine for a long

time. The concept of QoL has progressively shifted from a strictly sociological and objective prospective to a psychosocial prospective in which the individual's sense of well-being becomes a primary dimension of QoL. The emphasis of the current approach on subjectivity about satisfaction with life (or specific life domains) – as well as on the individual's perception of his/her daily functioning – is more related to the happiness and psychological well-being than to the social indicators of traditional research.

GENERAL QUALITY OF LIFE

The concept of QoL is complex and has a number of different meanings. Moreover, to talk about QoL

is difficult because implicates to discuss the purposes of life. The concept of general QoL has traditionally included a number of distinct domains and major indicators, which were referred to by most authors as economic, social or subjective.

Economic indicators. Over long periods of time, the western countries have used statistics to evaluate citizens and nations well-being. The evaluations adopting an economic perspective were mainly based on data about the income, productive and commercial activities of citizens [1]. The assumption was that the economic activities have a fundamental impact on psychological well-being levels. However, the lack of evidence of a direct causal link between prosperity and psychological well-being suggested that these evaluations were not sufficient to describe the QoL and that it was necessary to consider also other indicators not related to the financial status.

Social indicators. Although the characteristics of the social environments vary widely and individuals have different needs for social contact and interaction, most individuals live within an immediate social environment. The use of social indicators in addition to economic indicators derived from the attempt to describe the QoL using other components of living, which were previously excluded: socio-demographic characteristics, social classes, employment rates, level of technology, society created and maintained organizations, structures and cultural institutions, government entities, vocational opportunities, religion, literacy rates and life expectancy. In addition to those, others components have been identified, such as housing and working conditions, crime rate, security and legal issues [2]. Social indicators, as well as economic indicators, are considered objective indicators because they are independent from individuals' perceptions and personal factors such as personality, values and beliefs about life, and can be gathered without directly surveying the individual being assessed. Social indicators represented a progress with respect to economic indicators, which were less specific. However, it was objected that they described life conditions, which, hypothetically, may influence life experience, but good experiences for a person mainly depend on what that person in fact desires. In light of the above, several authors provided many examples showing a very limited relation between objective living conditions and subjective responses so that they concluded that it was a mistake to assume that social components of QoL correlated closely with the subjective experience of well-being [3]. This consideration has reinforced the importance of including both objective indicators and subjective response categories in a full conception of the QoL, since neither of them appeared to be a reliable surrogate for the other.

Subjective indicators. Subjective indicators have in common certain kinds of conscious experience of pleasure, subjective well-being, happiness, satisfaction or enjoyment that typically accompany the successful pursuit of our desires. Particular activities,

such as studying astronomy or playing tennis, are part of a good life only to the extent that they produce a valuable conscious experience. A recent theory of subjective well-being holds that at least part of a good life consists neither of any conscious experience of a broadly hedonism nor of the satisfaction of the person's preferences or desires, but of the realization of specific human potentials [4]. Therefore, in recent years, the theorization of well-being has followed two distinct paradigms, one focused on "hedonic" well-being (centered on the pursuit of happiness) and the other on "eudaimonic" well-being (resulting from the development of human potential). Research on hedonic well-being has mainly focused on the assessment of subjective well-being (SWB), which includes an affective component (*i.e.*, a balance between positive and negative affect) and a cognitive component (judgments concerning life satisfaction) [5]. The term "eudaimonia" was first used by Ryff in her formula of positive psychological health, in which psychological well-being (PWB) is explicitly related to the individual's self-realization [6]. Ryff's conception of PWB is based on six dimensions (*i.e.*, self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth), which have been operationalised in Ryff's scales of psychological well-being (SPWB) [4]. SWB and PWB have been often considered as distinct and opposite pursuits, yet each may contribute to well-being in different ways. An important point is that the use of these measures represents a recognition that life is good as long as the person is happy or pleased with how it is going, that is the person is subjectively experiencing it as going well, as fulfilling his or her major potentials, and satisfying.

At present time, the recognized optimal approach incorporates various indicators, both objective (home management, work, income, personal rights, recreation are considered central objective indicators common in all lives) and subjective (personal satisfaction with life and self-realization). Three basilar dimensions of QoL are commonly recognized. Lehman [2] has provided one of the most persuasive instances to include both the objective and subjective dimensions of QoL, paving the way to a theory that incorporates three components of general QoL: the global functioning level (what a person may do), the available resources to achieve personal objectives (what a person has) and the sense of well-being and satisfaction with one's life. Obviously, this theoretical perspective derives from the studies in general population where some domains of QoL may not be expected to be directly affected by most health care interventions.

HEALTH RELATED QUALITY OF LIFE

In the field of medicine and health care services research, the interest for the health related quality of life (HRQL) has represented a progress respect to the simple investigation of diseases and their symptoms.

HRQL represents those parts of QoL that directly relate to an individual's health so that the QoL of an individual varies depending on one's state of health as well as on many other factors. A major concern in the debate about the QoL in medical and health care was the sense and the extent to which judgments on QoL had to be objective or subjective. During the 80s, experts reached an agreement on the fundamental or primary HRQL dimensions, which include physical functioning, somatic sensation and symptoms, psychological and social functioning. *Figure 1* shows these dimensions, which may be considered *constitutive* dimensions of QoL and have to be always taken into account in health care settings. Each of the four broad groups of functions is then broken down into some distinct components.

In each of these measures or components of QoL, the emphasis is on the function, and on the functions of the whole person as opposed to body parts and organ systems.

Physical functioning is the QoL factor most nearly approximating the outcome objective measures physicians' use. Questions about strength, energy and ability to carry on normal activities of daily living are traditionally asked. However, most instruments that evaluate these functions are constructed and validated in institutional populations so as to provide a scalar representation of the severity of impairments and physical disabilities. Therefore, because the top level of physical functions often represents the minimum functional state required for self-care, such measures are difficult to be transposed to QoL surveys examining ambulatory populations because their discriminating function is seriously compromised.

Somatic symptoms encompass unpleasant physical feelings that may detract from someone's QoL. They traditionally include pain, nausea, and shortness of breath.

Psychological functioning, proper territory for psychologists, is frequently problematic for physicians. The most common constructs assessed include anxiety and depression. Some of the commonly used psychological measures are the general health questionnaire [7], the Beck depression inventory [8], the Zung self-rating depression scale [9] and the Spielberger state-trait anxiety inventory [10]. However, psychological functioning can be assessed with a broad range of instruments, which may examine relevant aspects and symptoms more likely to be influenced by specific diseases and treatments (for example positive and negative symptoms in patients suffering from schizophrenia).

Social functioning addresses both the social relationships ability of the individuals and the availability of people in the individuals' environment to provide such relationships. Social relationships traditionally include family, close friends, work and vocational activities associated, and the general community relationships. Social networks may be instrumental in helping a person cope and adapt to a serious disease resulting in improved psychological well-being compared to those who may have limited social resources. This dimension illustrates the important point that most primary functional abilities require both behavioral capacities in the individual and relevant resources in the individual's external environment. The psychological and social dimensions can be understood as attempts to capture people's subjective responses to their objective physical condition and level of function or, in short, their level of happiness or satisfaction with life.

As mentioned above, there is only a very weak correlation between the objective and subjective aspects of QoL. The best available evidence indicates that clinical and social variables predict no more than 30% of the variance in an individual's HRQL [11].

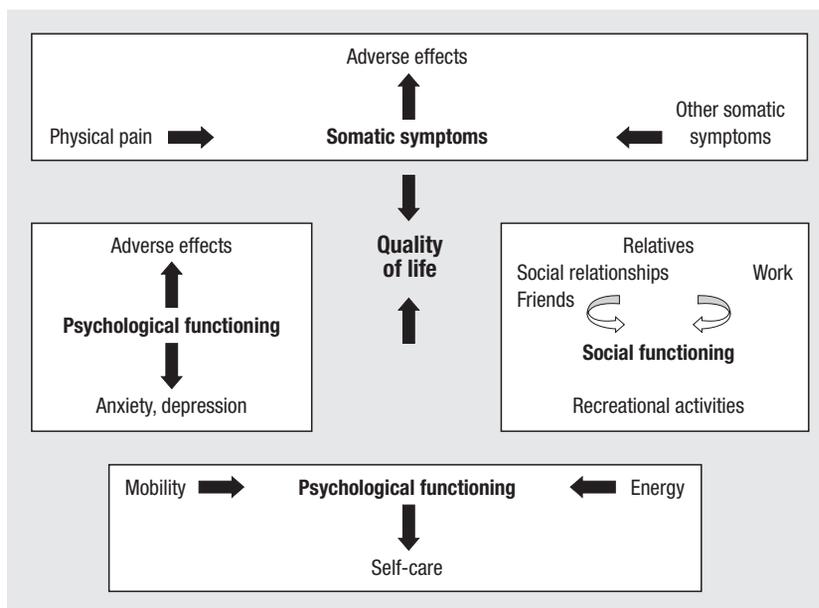


Fig. 1 | *Quality of life dimensions of oncologic patients (partially modified From: Ganz PA. Quality of life and the patient with cancer: individual and policy implications. Cancer 1994;74: 445-52.).*

For example, although a patient who is prescribed lithium for a mood disorder may be in good health (stabilized), an increase in weight or having to take medicines daily may result in a low QoL.

Therefore, the above mentioned four dimensions likely do not represent the total spectrum of QoL in health care settings. Many other factors, both internal and external to an individual, may affect health perceptions functioning and ultimately QoL. For example, patient specific characteristics such as a motivation and personality may be more central to the structure of QoL. In this context, several studies have also evaluated the hypothesis that positive mental health and PWB may also influence biological functioning and ultimately HRQL. Traditionally, HRQL has generally focused on deficits in functioning (e.g., pain, negative affect). In contrast, positive psychological functioning focuses on assets in functioning, including positive emotions and psychological resources (e.g., positive affect, autonomy, mastery) as key components. To this regard, in the past decade numerous studies have shown that low PWB actually makes people more vulnerable to physical and mental ill-being. Older women with higher levels of purpose in life, personal growth, and positive relationships have been found to have lower cardiovascular risk and better neuroendocrine regulation [12]. Older women with positive relationships and purpose in life had lower inflammatory factors [13]. PWB has been also linked with greater left (as opposed to right) prefrontal cortex activation [14], which has been found to be associated with a reduced likelihood of depression [15]. Of psychiatric interest is the finding that low PWB was strongly associated with residual symptomatology of affective and anxiety disorders [16] suggesting that people with low PWB may be at risk for relapse and recurrence of these disorders. Furthermore, the most recent research has implicated impaired PWB levels in the aetiology of depression [17], suggesting that the improvement of PWB may have psychiatric implications. Thus, the importance of PWB in influencing physical and mental health has led some authors to consider patient's PWB as a fundamental aspect of QoL.

QUALITY OF LIFE IN PSYCHIATRY

Initially, within the field of psychiatric research, the principal focus of QoL assessment has been on the symptoms, impairments, and disabilities of severely mentally ill persons suffering from long-term and disabling illnesses such as schizophrenia, chronic depression, manic-depressive illness, and severe personality disorders. The reason for this focus lied in considering general population measures of QoL insensitive to the issues faced by this disabled population.

Since the early 1980s, there was an attempt to go over the predominant disease model for these disorders and the majority of the new measures have been based on the perspective of general health QoL,

perhaps because of the pervasive effects that these disorders could have on individuals' lives, limiting a broad range of life experiences. This was an era when mental hospitals, or "asylums" as they were called, were being closed in many western countries (a process called "de-institutionalization"), and patients suffering from chronic severe mental illnesses were being released into the community. Therefore, an understandable concern was their "quality" of living in the community. The earliest studies to examine this issue were from USA [2, 18]. However, there were problems in defining and measuring the construct in a theoretical and operational fashion.

In fact, when examining the available measures and research literature, it becomes clear that many methodological questions besieged this field, since neither a conceptualization nor a common definition of factors that influenced subjective experiences and perceptions of psychiatric patients were commonly accepted.

MAIN CONCEPTUAL MODELS OF QUALITY OF LIFE IN PSYCHIATRY

Angermeyer and Kilian have recently reviewed the QoL concepts used in the psychiatric literature and have distinguished three models [19]: a) the "subjective satisfaction model" (the level of QoL experienced by an individual depends on whether or not his/her actual living conditions meet his/her needs, wants, and wishes); b) the "combined subjective satisfaction/importance model" (which considers different weights that different life domains may have in a person's QoL; individuals are invited to rate not only actual living conditions, but also their importance); and c) the "role functioning model" (the individual enjoys a good QoL if he/she performs adequately).

As a corollary of these models, it follows that such evaluation has to be subjective. This has been a problematic area, with some authors arguing that subjective reporting only may not be sufficient to do justice to psychiatric patients QoL, which may be affected by various factors that may distort or bias such self-evaluation [20, 21]. In fact, some basic and methodological issues have been raised when assessing subjective QoL of individuals with severe mental disorders [22] because patients' evaluation may be influenced by affective, cognitive and reality distortion symptoms as Atkinson *et al.* [23] and Katschnig *et al.* [22] have shown for depression and schizophrenia.

Moreover, these subjective models have been often criticized for not taking into account objective opportunities available in one's environment (life circumstances and material resources). The inclusion of environmental factors seems necessary because different resources may differently affect psychiatric patients' goals and standard of living. The abilities of individuals suffering from severe mental disorders are different depending on where these individuals live, whether in a therapeutic community context, nursing home, or private apartment, whether in a

degraded periphery or a civil and tolerating small town with intensive voluntary based social services.

On the other hand, objective conditions may be influenced by the subjects' expectations. The same objective event may result in opposite evaluations by different subjects depending on their perspectives or expectations. It has been noted, for example, that many persons suffering from long-term mental disorders report themselves satisfied with life conditions which would be regarded as inadequate by external standards. Barry and Crosby [24] evaluated QoL in a sample of patients during admission in a psychiatric hospital ward and after discharge. One of most surprising result was that subjective QoL ratings were higher in admitted patients than discharged patients, although objective conditions indicated the reverse. Since these patients were not able to achieve their aims they had lowered their expectations. In general, these findings suggest that persons may lower their standards keeping the gap between expectations and achievements narrow.

Katschnig *et al.* [22] have developed a multidimensional model *action oriented* for assessing QoL in depressed patients, which includes three components: psychological well-being/life satisfaction, functioning in social roles and contextual factors. It is worth noting that various mental health interventions could be classified according to these components: some may act on the component of psychological well-being (*e.g.*, pharmacotherapy), some on role functioning (*e.g.*, psycho-educational programs, social skills training), and some on environmental resources (*e.g.*, providing money or housing).

Other models. Although the pathophysiologies of various mental disorders are not fully understood, all are currently conceptualized in terms of a stress-vulnerability model. That is persons so afflicted have a biological vulnerability to develop characteristic symptoms of the disease (*e.g.* hallucinations and delusions in schizophrenia; anhedonia, suicidal ideation, dysphoria in depression; hyperactivity, flight of ideas, hypersexuality in mania), and stress tends to activate this vulnerability to produce symptoms. Awad [25] proposed an integrative model of QoL, with reference to sources of stress in schizophrenic patients receiving antipsychotic drug therapy. Antipsychotic medications frequently produce a wide range of side-effects that can impact negatively on the functional status of the individual. According to this model, Awad has conceptualized QoL as the patient's perception, which derives from the interaction between three major determinants: the severity of psychiatric symptoms, the side-effects including subjective responses to psychotropic drugs and the level of psychosocial performance.

QUALITY OF LIFE IN MENTAL HEALTH SERVICES

The interest of the QoL has gained prominence in mental health practice only recently with respect to

other medical disciplines, such as oncology or cardiology, or rheumatology, perhaps because the QoL measures were considered as tautological in the psychiatric field, having contents largely overlapping with measures of psychopathology. In fact, several items in the most common tools for measuring QoL are similar or identical to the items included in many psychopathology scales. Moreover, some of the components that have been previously defined as *constitutive* of HRQL (*e.g.*, psychological functioning, social functioning) represent, as already underlined, the main areas of psychiatric and clinical psychology interventions. In particular, psychological functioning impairment represents the main area of psychotherapeutic and psychopharmacological interventions, social functioning impairment the main area of rehabilitative intervention.

Today, QoL issues in relation to mental health care are especially relevant with regard to part of evaluation of treatment outcome. Outcome evaluation in mental health services is very important for the following reasons:

1. in regard to the psychotherapeutic, psycho-educational and rehabilitative interventions, there are different cultural models, therefore process evaluation studies are more difficult to conduct because no uniform agreement is reached on which strategies should be used in these kinds of interventions;
2. outcomes in this field are more influenced by social and environmental factors than in other health care fields, therefore their evaluation is of particular importance even though optimal professional activities are present.

According to Lehman [2], the concept of treatment in mental health services should be replaced by that of *improvement of quality of life*. Evaluating mental health interventions, especially rehabilitative interventions, should mean mainly determining their capacity to increase the QoL of their users.

QUALITY OF LIFE IN PSYCHIATRIC REHABILITATION

QoL is also relevant with regard to setting goals for psychosocial therapies and rehabilitation. The major interest of psychiatric rehabilitation should be helping individuals with serious mental illness to develop the skills needed to reach objectively adequate conditions of life (own housing, education, meaning work, satisfying social and intimate relationships, and participation in community life with full rights). In fact, during the last decade, also the mental service users emphasize some dimensions of their QoL, such as the capacity to access to valued social roles, the removal of discriminatory barriers and a better social integration. This was strictly associated to a urgent need for mental health systems to modify the mission of care, from merely alleviating symptoms or reducing the relapses, to encouraging rehabilitation and achievement of global ob-

jectives (the global objectives represent the way the patient would like to live).

Thus, effective psychiatric rehabilitation requires individualized rehabilitative programs, which have to be mainly based on assessment of user's disabilities and strengths, negotiation of realistic and measurable global goals, subdivision of global goals into elementary skills and tasks, and routine evaluation of progress towards the achievement of these skills and goals (Table 1).

In the last three decades, the results of several controlled studies have suggested that disabled individuals can be taught a wide range of social skills. Overall, social skills' training has been shown to be effective in the acquisition and maintenance of skills and their transfer to community life [26-28]. Family psycho-educational programs have also produced promising results and are effective in lowering relapse rate and also in improving outcome, e.g. psychosocial functioning [29].

Services should play an additional role in activating resources in the community to facilitate users' achievements of their individual goals. In fact, the rehabilitation is not an abstract individual capacity;

it depends from the context in which the individuals live, and from both the difficulties or obstacles that they may meet and the purposes that they have.

Thus, a peculiar aspect of the application of the QoL construct in mental health is that in this field the option to include specific instrumental components is an unavoidable choice. Comfortable house, job, economic resources, respect of personal rights, privacy, safety (being not victims of offenses), and accessibility to social and medical services are fundamental indicators of QoL in mental health care, because more related to mental disorders than to somatic disorders. In addition to these components, which could be defined as environmental instrumental components of QoL, there are also personal instrumental components that can be useful to improve QoL; these personal instrumental components (e.g. housekeeping, food preparation, laundry, ability to use telephone, use of transport facilities, physical health-self management, telephone use) can be considered as intermediate outcomes in rehabilitation psychiatric interventions. A possible classification of both environmental and personal instrumental components is shown in Table 2.

Table 1 | Components of a rehabilitation approach for inpatients with severe mental disorders

Components	Examples	Memory aides areas and forms	Planned rehabilitative strategies
1. Assessment of areas of social functioning, including an area of skills, and choice of priority areas aspects (general objective) compatible with so called "global objective" (the global objective is how the patient would like to live)	Global objective: to come back home and have good social relationships; General objective: participation in the activities of facility living		
2. Global evaluation		Personal and Social Performance scales	
3. Negotiation of realistic, attainable, specific (measurable) objectives	Using active listening during the "afternoon meeting" with volunteers	Planning sheet: - general objective; - specific objective definition; - needed skills; - existing abilities and resources; - required resources; - case manager and other professionals involved in the plan identification; - operative details of the plan (techniques to be used); - reinforcement description and countermeasures; - impediments to the application of the plan and countermeasures - identification or renewal checking dates	Role playing Modelling Problem solving
4. Subdivision of specific objectives in skills and tasks	1. Wait of turn in the dialogue 2. Look at person 3. Look interested (e.g. nodding your head) 4. Ask questions to clarify what is being said 5. Check out if you understood well	Personal and social performance and specific objective form	
5. Maintenance and generalisation and outside	Listening in the rehabilitation setting and specific objective form	Personal and social performance and specific objective form	

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Table 2 | Instrumental components of human functioning domains

1. Self-care	16. Friendly and support relationships
2. Clothes self-care	17. Anger control
3. Physical health self-management	18. Cohabitation rules observance
4. Psychological health self-management	19. Safety
5. Housing	20. Interests
6. Area of residence	21. General information
7. Personal environment care	22. Need for education
8. Job or socially useful activities	23. Money management
9. Amount of daily activities	24. Use of transport facilities
10. Speed of movement	25. Telephone use
11. Participation to residential and day treatment facilities activities	26. Purchases and payments
12. Participation to family activities	27. Coping with emergency
13. Intimate and sexual relationships	28. Income, pension, benefits
14. Children care	29. Synthesis of strengths
15. Social relationships frequency	

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These components have also particular relevance with regard to their implications for mental health services evaluation policy and strategies. QoL instruments for the evaluation of programs and strategies aiming not only at the reduction of symptoms but also at the promotion of QoL and patients' autonomy, do take the majority of these components into consideration.

Another peculiar aspect of QoL construct in mental health is the moderate agreement between the viewpoints of patients, their families, and professionals. The reasons of the discrepancy between patients' QoL ratings and external QoL evaluations provided by professionals and relatives are not fully clear yet. In a Sainfort's study [30], judgments on

Table 3 | Quality of life instruments mainly used in psychiatric field

Instrument	Comments
Quality of Life Scale - QLS (Heinrichs <i>et al.</i> , 1984)	21 item- semi structured interview which includes useful scales for QoL assessment of patients suffering with schizophrenia.
Symptom Questionnaire - SQ (Kellner, 1987)	92 item-self-rating questionnaire on symptoms and positive emotions. It may be especially used for monitoring treatment outcomes.
Lancashire Quality of Life – LQL (Oliver, 1991)	100 item-self-rating multidimensional questionnaire especially useful for research in psychiatry. Contains a measure about reliability of patients reports.
SmithKline Beecham Quality of Life Scale – SBQOL population (Stoker <i>et al.</i> , 1992)	28 item-self-rating questionnaire especially used for QoL assessment of patients suffering with depression. Good psychometric properties (validity and reliability).
Quality of Life in Depression Scale – QLDS (Tuynman-Qua <i>et al.</i> , 1992)	34 item-self-rating questionnaire especially used for QoL assessment of Patients suffering with depression. Good psychometric properties (validity and reliability).
Quality of Life Inventory – QOLI (Frish <i>et al.</i> , 1992)	16 item-self-rating questionnaire on satisfaction/importance of different life domains.
Quality of Life Enjoyment and Satisfaction Questionnaire – Q-LES-Q (Endicott <i>et al.</i> , 1993)	58 item-self-rating questionnaire especially used for QoL assessment of patients suffering with depression. Good psychometric properties (validity and reliability).
Quality of Life Interview – QoLI (Barry <i>et al.</i> , 1991)	96 items administered by interview used with chronic patients living in rehabilitation facilities.
Quality of Life Index for Mental Health – QLI-MH (Becker <i>et al.</i> , 1993)	100 item-self-rating questionnaire. Moderate feasibility because long.
Satisfaction with Life scale - SLS (Baker & Intagliata, 1982)	15 item scale administered by interview. Reliable, and easily acceptable in routine evaluation.
WHO Quality of Life – WHOQOL -100 (The WHOQOL Group, 1998)	100 item self-rated instrument for assessing a wide spectrum of psychological and physical disorders, especially useful for research.
WHO Quality of Life – WHOQOL -BREF (The WHOQOL Group, 1998)	26 item self-rated reliable instrument easily acceptable in routine evaluation.

Modified from: Conti L. *Repertorio delle scale di valutazione in psichiatria*, Firenze: SEE; 1999.

Subjective quality of life instrument

Code _____

a) Site ID _____

b) Patient's ID _____

We would like to know something about your quality of life to better evaluate the quality of our work and to improve it. Please answer all the following questions about some aspects of your life which you may have experienced, on average, in the last week. The information which you give here will remain strictly confidential and will not be disclosed to anyone without your permission. Please, be as sincere as possible.

c) What is your name? _____

d) Please, write today's date _____
Day Month Year

e) How old are you? _____ Years

f) What is your gender? ① male ② female

Overall, on a scale from 1 to 10, where 1 means horrible 10 wonderful e 6 so and so, which rating would you give to the following aspects of your life in the last 7 days? (tick the rating that is nearer to your condition)

1 - Your physical state of health (including physical pain and side effects of drugs which you may take)

1 2 3 4 5 6 7 8 9 10
very bad so and so very good

7 - Your relationships with relatives (excluding spouse, boy/girl friend, or partner)

1 2 3 4 5 6 7 8 9 10
very bad so and so very good

2 - Your self-sufficiency in daily life activities (e.g., eating, washing, dressing, toilet use, moving around and transport use, etc.)

1 2 3 4 5 6 7 8 9 10
totally dependent I only need help for bath or shower totally autonomous

8 - Your social relationships with friends and other persons (e.g., colleagues)

1 2 3 4 5 6 7 8 9 10
very bad so and so very good

3 - Your psychological condition (do you feel you get enjoyment, or on the contrary do you feel downhearted and blue, tense, anxious, excessively worried?)

1 2 3 4 5 6 7 8 9 10
very bad so and so very good

9 - Your interests, spare time activities and fun

1 2 3 4 5 6 7 8 9 10
very bad so and so very good

4 - Your work, study or work-equivalent activities (e.g., work, study, housework, volunteer work)

1 2 3 4 5 6 7 8 9 10
very bad so and so very good

10 - The environmental conditions in the area where you live (social, recreational and cultural services, safety from thefts and other crimes, violence, bullying or neighbours courtesy)

1 2 3 4 5 6 7 8 9 10
sordid and unsafe so and so it suits me perfectly

5 - Your financial condition

1 2 3 4 5 6 7 8 9 10
I do not have money to buy essential things such as food and clothing some problems or lack of money for infrequent expenses very good

11 - The place (apartment, pension or residence) where you live

1 2 3 4 5 6 7 8 9 10
sordid and unsafe so and so it suits me perfectly

6 - Your sentimental and sexual relations

1 2 3 4 5 6 7 8 9 10
very bad so and so very good

12 - Your present life on the whole

1 2 3 4 5 6 7 8 9 10
horrible so and so wonderful

Please write below any specific suggestions for improving the care and quality of life of this center

.....

.....

Fig. 2 | Preliminary validation of a simple instrument for evaluating quality of life in mental health services practice. Provisional English version. If you intend to use this questionnaire or to receive the Italian version, please contact us at: antonella.gigantesco@iss.it. No copyright is involved.

several dimensions of QoL were collected from a sample of psychiatric patients and their primary clinicians by using the quality of life index [31] and the quality of life index-mental health [32]. The results suggested that patients' and providers' judgments are more likely to coincide on clinical aspects, such as symptoms and function, than on social aspects. Specifically, there was moderate agreement on symptoms and function, less agreement on physical health, and little to no agreement on social relations and occupational aspects of QoL.

Such differences support the notion that rehabilitation strategies in mental health services should address a wide range of needs reflecting different aspects of QoL as perceived by the patients. However, as already mentioned, patients suffering from severe mental disorders may show no satisfying life ratings, despite objectively improved living conditions. Therefore, additional evaluations by key professionals and caregivers are necessary to complement the patient's own assessment [33].

QUALITY OF LIFE ASSESSMENT INSTRUMENTS FOR RESEARCH AND ROUTINE EVALUATION OF MENTAL HEALTH SERVICES

At present, a large number of instruments have been designed and utilized to assess and monitor the QoL of psychiatric patients (*Table 3*).

Therefore, the type of instruments selected for a survey will depend on the field of application of these instruments.

Multidimensional instruments are recommended in the field of research or in the framework of continuous quality improvement projects. In the psychiatric field, the Lancashire quality of life profile (LQL) [34] may serve as a good research tool. The original LQL is a structured interview, designed to define the QoL of severely mentally ill people. In its present form the LQL assesses nine domains, *i.e.* work and education, leisure and participation, religion, finances, living situation, legal status and safety, family relations, social relations, and health. Each domain contains objective and subjective items.

In addition, the LQL assesses positive and negative affect according to the Bradburn 10-item *affect-balance scale* [35], and self-esteem with Rosenberg's 10-item *self-esteem scale* [36]. It also assesses global well-being which is operationalized in three unitary measures that together produce an average life satisfaction score.

Finally, the interviewers were asked to rate the present QoL of the interviewed client on a visual analogue QoL uniscale and, at the same time, to estimate the reliability of the client's responses.

For comparisons of psychiatric patients with general population, QoL general instruments are suggested. The most important is the World Health Organization Quality of Life (WHOQOL) for assessing a wide spectrum of psychological and physi-

cal disorders [37]. The 100 items are organized in 24 facets, subsumed within the following six domains – physical, psychological, independence, social, environment and spirituality – and one overall general QoL and health scale. The WHOQOL is a self-rated instrument that requires approximately 45 minutes. In 1998, the WHOQOL Group developed an abbreviated version of the WHOQOL-100, the WHOQOL-BREF [38] that only takes 10-15 minutes.

In the routine evaluation of mental health interventions, where the instruments used should be brief and easy-to-use, other tools are recommended and, in our opinion, the most simple is the satisfaction with life domains scale of Baker and Intagliata (SLS) [18]. It is a 15 item self-report scale administered by interview. The SLS assesses satisfaction with housing, neighborhood, food and eat, clothing, health, people lived with, friends, family, relation with other people, work day programming, spare time, fun, services and facilities in area, economic situation, place lived in now compared to state hospital, and total life satisfaction score.

Recently, an Italian tool derived from the SLS has been developed. The tool consists of only 10 self administered items, which are expressed in colloquial language, in a clear and wide lay-out, with response scales from 1 to 10 and “small faces” reinforcing the meaning of the scale direction (*Figure 2*). This tool has been shown to be reliable, acceptable and useable in clinical and evaluative routine of mental health services for assessing subjective patients QoL.

CONCLUSIONS

Despite the QoL is a complex concept characterized by multidimensional aspects, numerous studies seem to recognize it as an important, reliable and useful measure for assessing conditions of individuals suffering from mental disorders before, during and after their treatment with psychosocial interventions. Professionals involved in mental health care can use a large spectrum of QoL instruments to better orientate their routine practice.

An increased surveillance of the variables associated with higher levels of QoL in general population may be potentially important from a public health policy point of view because improving QoL may have benefits for mental health and disease prevention.

Conflict of interest statement

There are no potential conflicts of interest or any financial or personal relationships with other people or organizations that could inappropriately bias conduct and findings of this study.

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