Association of Perceived Quality of Life and Oral Health Among Psychiatric Outpatients

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Objectives: **The relationship between oral health and various aspects of quality of life has gone uninvestigated in psychiatric populations. The aim of this study was to investigate the correlation between the Oral Health Impact Profile–14 and subjective quality of life, perceptions about general health, and self-related variables.** ***Methods:*** **A structured interview constructed from validated instruments was administered to 113 consumers attending outpatient psychiatric care.** ***Results:*** **A lower perceived oral health–related quality of life had a correlation with decreased ratings of subjective quality of life, general health disabilities, and chance and internal locus of control.** ***Conclusions:*** **Correlations between subjective and general health–related quality of life and oral health–related quality of life had not been detected in this group before. In order to improve mental health consumers' total perceived quality of life, oral health problems should be regularly addressed in the course of psychiatric care. (*Psychiatric Services* 60:1552–1554, 2009)**

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Populations with mental health problems have been found to suffer from poor oral health (1,2). It has been shown in healthy populations that oral health independently influences quality of life (3). Decreased oral health has also been found to contribute to a lowered appraisal of psychological well-being and diminished satisfaction with life. Mental illness has been proven to affect several domains not solely related to mental illness (4). Affected areas include financial situation and social network; living with mental illness may also have an impact on oral health and thus affect the total appraisal of life satisfaction.

Factors of self-esteem (3) and health beliefs (5) might also be of importance. Persons attending outpatient psychiatric clinics may have oral health problems that affect their everyday living ability, social functioning, and perceived well-being. Literature reviews have indicated that the effect of oral health on life satisfaction and well-being has not been investigated with psychiatric populations. The purpose of this study was to examine the relationship between oral health–related quality of life, subjective satisfaction with life, perceptions about general health, self-esteem, and locus of control.

Methods

This cross-sectional study was based on a random sample of psychiatric consumers, who were recruited through six outpatient psychiatric services in the southwest of Sweden. Service administrators introduced the project to prospective participants and gave oral as well as written information about the study to those who met the inclusion criteria. Participants were required to be between age 20 and 65, able to understand and speak Swedish, and in contact with psychiatric services at least once per year. These inclusion criteria resulted in a sample of 144 consumers, who gave oral permission to be contacted by the researchers for detailed information about the project. After being provided further information about the research by telephone, ten individuals declined to participate. Another 21 did not show up at the agreed-upon time or were unable to participate for other reasons. Written consent was obtained from the remaining 113 consumers.

The final sample for the study consisted of 46 men, mean±SD age 45±11, and 67 women, mean age 41±12. The mean age of the total sample was 43±12. All consumers were diagnosed according to *DSM-IV* (6): 37 (33%) were diagnosed as having schizophrenia spectrum disorders, and 34 (30%) had diagnoses of mood disorders, 23 (21%) had anxiety disorders, and 19 (16%) had miscellaneous disorders consisting of eating, personality, and other psychiatric disturbances. Ethical approval for the study was obtained from the Regional Ethical Review Board at Lund University.

Data collection, conducted between June 2005 and June 2007, consisted of a structured interview based on validated instruments that monitor aspects of self-perceived health. The batteries of questions were read to the participants as a structured interview.

A person's quality of life as related to oral health was measured with the Swedish version of the Oral Health Impact Profile–14, which is known to

have good psychometric properties (7). It consists of 14 items assessing seven domains: functional disability, physical pain, physical disability, psychological discomfort, psychological disability, social disability, and handicap.

Satisfaction with different areas of life was investigated with a Swedish version of the Manchester Short Assessment of Quality of Life (MANSA), which has shown good psychometric properties (4). Eleven items investigate job satisfaction, financial status, social relationships, leisure, housing, feelings of security and insecurity, sexual relations, family relationships, and physical and mental health.

General perceptions of health were assessed by the 12-item Short Form Health Survey, which provides a score for the mental health components and for the physical health components (8).

Self-esteem was measured with the Rosenberg Self-Esteem Scale (9). Six of the original ten items (five worded positively and five negatively) were selected.

The Multidimensional Health Locus of Control (MHLC) scale is designed to measure an individual's expectations about being in control of his or her health. The three-scale model has been used as a predictor of different healthy and unhealthy behaviors (5). Of the original 18 items, eight were used to represent the three subscales. The internal locus of control scale was represented by three items, where beliefs are based on one's traits or behavior. Three items represented the chance scale, which measures the degree to which one's beliefs are based on chance. If beliefs are based on other forces, these were monitored by the "powerful other" scale, represented by two items.

The material was analyzed with SPSS software for Windows, version 15.0. Bivariate correlation between variables was measured with Spearman's rho. A statistical significance level of ≤.05 was established.

Results

Results are presented for the sample as a whole because no significant differences between diagnoses, gender, or age groups were identified. The correlations between the total OHIP-14 score and the seven subscores versus the other instruments are presented in Table 1. Higher OHIP-14 scores indicated more negative impact on oral health–related quality of life.

Discussion

Measuring quality of life is a complicated process. In this study, we hypothesized a correlation between both oral health–related quality of life, subjective satisfaction with life, and perception of health. These assumptions were confirmed by our results. We also assumed that such self-related variables as self-esteem and locus of control would show a correlation with oral health–related quality of life. In this regard, we were able to confirm a correlation between only two of the health locus of control subscales and oral health–related quality of life.

Our findings showed a correlation between oral health–related quality of life and satisfaction with life, not previously reported. A correlation between the instruments was expected because both, to a certain extent, are designed to measure the social impact of ill health. Among the instruments investigated, MANSA, measuring satisfaction with life, showed the strongest correlation to both total perception of oral health–related quality of life and the subdimensions that could be expected to be valuable to keeping up a social network, such as psychological discomfort, psychological disability, and social

Table 1

Correlations between the 14-item Oral Health Impact Profile (OHIP-14) and several measures of health and well-being for outpatients with severe mental illness[a]

OHIP-14 dimension	OHIP-14 score (N=113)[b] M	SD	MANSA (4.5±.9; N=108)[c]	MCS-12 (38.4±11.8; N=108)[d]	PCS-12 (45.9±10.5; N=108)[d]	CHLC (6.7±3.3; N=111)[e]	IHLC (6.9±2.0; N=111)[e]	PHLC (11.4±2.5; N=111)[f]	RSES (18.2±3.2; N=110)[g]
Total	12.8	12.1	–.40**	–.20*	–.30**	.20*	–.20*	.00	.10
Functional disability	1.2	1.9	–.04	–.09	–.12	.33*	–.12	.14	–.6
Physical pain	3.2	2.5	–.38**	–.26**	–.23*	.08	–.11	.01	–.11
Psychological discomfort	2.4	2.4	–.33**	–.15	–.25**	.22*	–.20	.11	–.07
Physical disability	1.2	1.9	–.32**	–.18	–.22*	.31**	–.09	.05	–.10
Psychological disability	2.2	2.3	–.36**	–.19*	–.19*	.27**	–.07	.05	–.20
Social disability	.9	1.7	–.20*	–.20*	–.28**	.10	–.30**	.07	–.05
Handicap	1.6	2.2	–.32**	–.30**	–.23*	.12	–.06	–.01	–.10

[a] Values are Spearman's rho correlations. Scales are as follows: MANSA, Manchester Short Assessment of Quality of Life; MCS-12, mental component subscale of the 12-item Short-Form Health Survey; PCS-12, physical component subscale of the 12-item Short-Form Health Survey; CHLC, chance subscale of the Multidimensional Health Locus of Control (MHLC); IHLC, internal locus subscale of the MHLC; PHLC, powerful others subscale of the MHLC; RSES, Rosenberg Self-Esteem Scale.

[b] Possible total score ranges from 0 to 56 and possible subscale scores range from 0 to 4, with higher scores indicating more negative impact.

[c] Possible scores range from 1 to 7, with higher scores indicating greater satisfaction.

[d] Possible scores range from 0 to 100, with higher scores indicating better health.

[e] Possible scores range from 3 to 15, with higher scores indicating stronger beliefs.

[f] Possible scores range from 2 to 10, with higher scores indicating stronger beliefs.

[g] Possible scores range from 6 to 24, with higher scores indicating greater self-esteem.

*p≤.05 (two-sided)

**p≤.01 (two-sided)

disability. Social cohesion has proven to be an important factor in life satisfaction both for mental health consumers (10) and for people with diminished oral health (3), so it is likely that diminished oral health could affect satisfaction with life.

Research shows an increasing awareness of problems associated with comorbid illness among people with severe mental illness (11). The significant correlation between oral health–related quality of life and perceptions of health confirms the perceived feeling of illness in the sample; further it suggests that both general medical illness and mental illness may be linked with oral health. Moreover, scores indicated significantly lower perceptions of general medical health, mental health, and oral health than in the general population (8,12). Our findings may indicate comorbid illness that should be addressed (11).

The positive correlation between the chance subscale of the MHLC and oral health–related quality of life is in accordance with other findings with psychiatric consumers (13). Various health beliefs have been described as personality traits that remain stable over time; however, evidence suggests that some changes in health status might alter the balance between these beliefs (14).

Consumers with mental health problems might have experienced recurring episodes of personal and social disappointment that affected their expectations with regard to their well-being; these situations might also have changed the way they view themselves and care for their health. Self-esteem, formerly found to play a vital role in oral health care behavior, did not have a correlation with the impact of oral health in this study (3). A reason for this unexpected lack of correlation could be related to the selection of items, which focused mainly on the positive values of self-esteem.

The strength of this study was that its results can be compared with the results from an earlier study that used the same abbreviated protocol (12). However, in that population-based study, the sample answered a questionnaire sent by postal mail, with a response rate of 57%. Our study used a different methodology, which we carefully considered in the design process, with an aim of decreasing dropouts because of lengthiness of the interview. We achieved this by using a structured face-to face interview, which yielded a notably low nonresponse rate. Furthermore, in the design process we considered the effect of using long instruments, anticipating a possible increase of dropouts because of the known cognitive deficits of a portion of the study population, and compared that with the potential consequences of using abbreviated protocols, which would yield less information. Pilot interviews conducted with dental patients as well as healthy persons gave the implication that lengthy interviews were mentally taxing to the interviewees.

With our small sample we were not able to detect any bivariate differences between psychiatric diagnoses, gender, or age groups; such differences might have been detected with a larger sample. A further limitation is the low correlations between the different instruments. The use of short forms to limit the length of the interview might result in data too sparse to fully elucidate the bivariate relationships between the domains. This should be considered with the results of the MHLC powerful others subscale, where a significant correlation was expected. Even though Wallston (5) did not explicitly dissuade users from selecting a limited number of subscale items, the reduction of items in this case proved inefficient, and use of the full scale might have shown significant correlations.

Conclusions

Research concerning oral health in psychiatric populations is still in its infancy. We found a correlation between oral health–related quality of life and satisfaction with life that had not previously been demonstrated. This finding implies that oral health may be an area in which patients under psychiatric care experience dissatisfaction, although such issues may be overshadowed by other, more prominent health problems. Thus, it might be fruitful to regularly address oral health in the course of psychiatric care in order to diminish the total burden of a patient's ill health.

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