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Maturitas 41 Suppl. 1 (2002) S9–S12

MATURITAS
THE EUROPEAN MENOPAUSE JOURNAL

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Mental well-being in 5000 women participating in the 'Women-Plus' preventive medicine program

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Abstract

In the present study, we report on an additive evaluation of mental well-being in an established program of preventive medicine including general and gynecologic examination, and screening mammography. An easy-to-use questionnaire including 19 questions was completed by 5247 women. Answers were grouped into mental well-being, zest for living, sexuality, and self-assessment of psychic disorders. A risk score for the presence of major depression was calculated. Women with high and intermediate risk for major depression were found in 5.0–7.2% and 15.4–19.8% depending on age, respectively. Seven to 9.2% and 19.2–26.5% of women suspected themselves to be at a high and intermediate risk for psychic disorders, respectively. Deterioration of well-being as well as the risk of developing depression is mostly overlooked in a general preventive medicine setting. We conclude that problems involving mental well-being seem to affect a significant number of women. The incorporation of easy-to-use questionnaires able to screen for mental problems to general preventive medicine programs must be strongly recommended.

Keywords: Mental well-being; Depression risk score; Preventive medicine

1. Introduction

Vorarlberg is the most western and smallest province of Austria, sharing borders with Germany, Switzerland, and Liechtenstein. In Austria, Vorarlberg has been long regarded as role model for preventive medicine in various specialities [1].

Preventive medicine programs of our study group (aks) are organized and evaluated in Vorarlberg [2]. The aks was founded 1964 and is responsible for organisation and health promotion services on behalf of the state government. Nearly all colleagues from general/family medicine, obstetrics and gynecology, pediatrics, and internal medicine are members of the aks. Examinations provided by social security include an annual gynecological examination implemented in 1970, an annual medical check up provided by general practitioners implemented in 1972, and a bi-annual screening mammography implemented in 1989. Over the years programs enjoy a high rate of acceptance and participation ranging from 60 to 84% depending on age [2].

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0378-5122/02/$ - see front matter
PII: S0378-5122(02)00010-5

In 1991, an additive screening program for mental well-being called 'Women-Plus' was introduced. Besides the evaluation of osteoporosis, mental well-being and the evaluation of depression risk are the main aims of this program.

The aim of the present study is to give an overview of our results obtained after the first decade of 'Women-Plus' in Vorarlberg, Austria.

2. Materials and methods

Preventive medicine examinations in Vorarlberg, Austria, consist of annual examinations by general practitioners and gynecologists starting at age 20, a bi-annual screening mammography starting at age 40, and the evaluation of risks of developing osteoporosis or impaired well-being or depression in the female population. If diseases or significant risks are identified, a detailed diagnostic work-up is carried according to established protocols. The general aim of the aks can be described by improving the quality of life, extension of the active life expectancy, and reducing morbidity by early detection of risk factors and early stages of diseases [2].

Women older than 40 were asked to participate in the 'Women-Plus' program, if results from the other preventive medicine examinations were available. Of note, in contrast to the other examinations, social security did not pay for 'Women-Plus' program.

'Women-Plus' covers 58 questions in total, 19 of these especially address the state of well-being, zest for living, sexuality, and depression risk. For easier use and higher acceptance of participating women questions are reduced on essential core statements and do not use extensive standardized depression questionnaires. Selected questions asked are shown in Table 1. Women were asked to complete the questionnaire at home. Questions are answered by multiple choice system with yes, partial correct, or no. For a 'yes' answer two points, for 'partial' one point, and for 'no' zero points were calculated. The depression risk score is added up from the questions B4 to B7. These questions dealing with depression are embedded into the block 'zest for living'. Of note, our system does not allow women to spot any special indication of these questions and thus, allows us as an unbiased evaluation of women's risk of depression.

3. Results

The 5247 (51%) of all women participating in preventive medicine examinations have also taken part in 'Women-Plus' from July 1991 to May 1999. Ages ranged between 40–74 years. For the aim of the present study only questions with respect to mental well-being, zest for living, sexuality, self-assessment, and depression risk were evaluated.

The evaluation of mental well-being included questions with respect to insomnia, nervousness, difficulties to concentrate, and fatigue (questions A1–A4, Fig. 1) and general questions on zest for living (questions B1–B3, and B9, Fig. 2). Fig. 1 and Fig. 2 show the distribution of prevalences according to the respective answers broken down by age.

Table 1
Selected questions

Which changes did you recognize recently?	
A1	Insomnia
A2	Nervousness
A3	Difficult to concentrate
A4	Fatigue
A5	Melancholy
A6	State of panic
A7	Change of mood
A8	Decrease of libido
A9	Pain during intercourse
A10	Vaginal dryness
Questions to the zest for living	
B1	Are you satisfied by your role as housewife or professional woman?
B2	Are you having enough personal relationships?
B3	Do you have difficulties in decision-making?
B4	Are you enjoying life less than usual?
B5	Have you lost your innovative spirit?
B6	Bothers you the feeling that your life got senseless?
B7	Are you increasingly brooding?
B8	Do you have difficulties with respect to sexuality?
B9	Do you feel financially insecure?

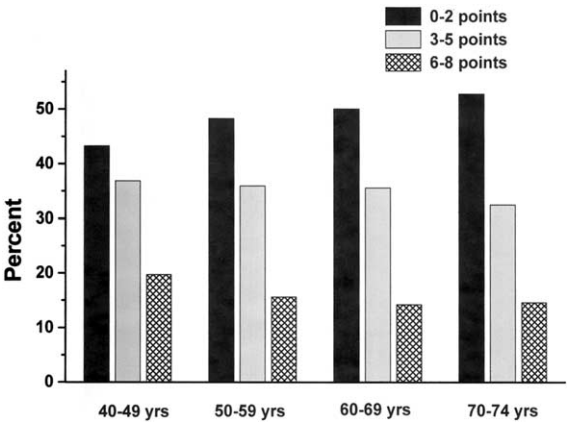

Fig. 1. Four questions (A1–A4) with respect to women's mental well-being. For a 'yes', 'partial', and 'no' answer 2, 1, and 0 points were calculated, respectively. Scores were added and broken down by age.

For the evaluation of women's sexuality, questions A8–A10 and B8 were evaluated collectively. Fig. 3 shows the prevalence of the four symptoms, i.e. decrease of libido, pain during intercourse, vaginal dryness, and difficulties with respect to sexuality, broken down by age.

Depression risk score was calculated from questions B4 to B7. A high risk for depression was suspected if all 4 questions were positively answered, even if these questions are only affirmed in part. Results of the calculated depression risk scores are shown in Fig. 4. Of note, the division

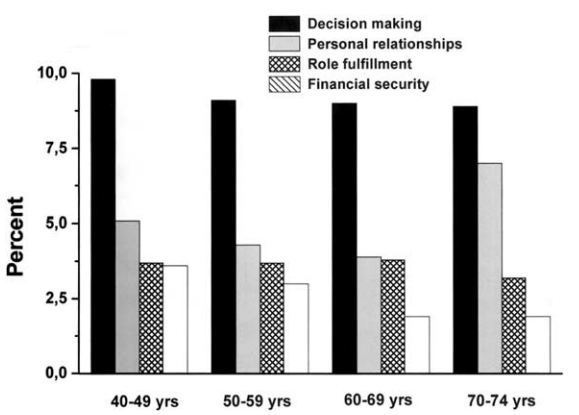

Fig. 2. Questions with respect to zest for living (B1–B3, B9). Percentages of 'yes' answers to the respective questions were broken down by age.

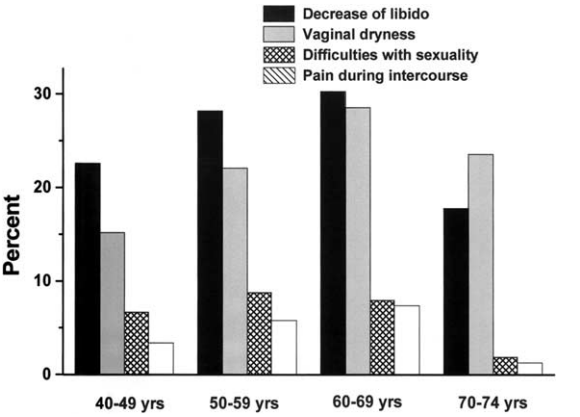

Fig. 3. Questions with repect to women's sexuality (A8–A10, B8). Percentages of 'yes' answers to the respective questions were broken down by age.

into 3 groups with 0–2, 3–5 and 6–8 points was arbitrarily. According to common recommendations a high risk for depression was ascertained in women with 6–8 points on the depression risk scale. Further examinations involving a psychiatrist were recommended.

Fig. 5 refers to women's self-assessment regarding melancholy, states of panic and changes of mood (questions A5–A7). Of note, 5.7–9.2% and 19.2–26.5% of women suspected themselves to be at a high and intermediate risk for psychic disorders, respectively.

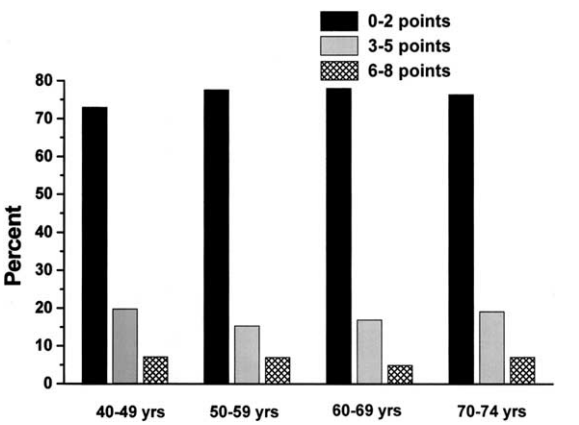

Fig. 4. Four questions (B4–B7) evaluating women's risk for depression. For a 'yes', 'partial', and 'no' answer 2, 1, and 0 points were calculated, respectively. Scores were added and broken down by age.

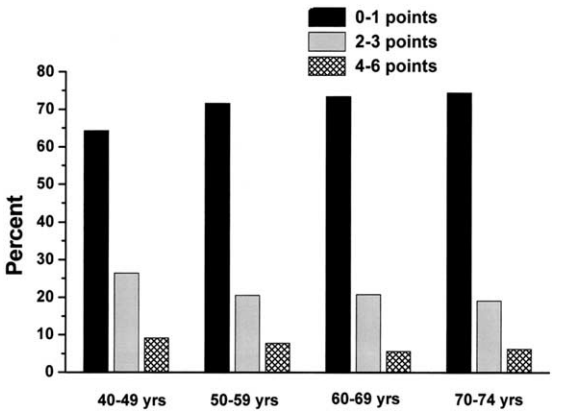

Fig. 5. Three questions (A5–A7) with respect to women's self assessment. For a 'yes', 'partial', and 'no' answer 2, 1, and 0 points were calculated, respectively. Scores were added and broken down by age.

4. Discussion

The high percentage of women with a major depression is remarkable in 'healthy women' [3]. In our series, women with high and intermediate risk for depression were found in 5.0–7.2% and 15.4–19.8% depending on age, respectively.

In the present study we report on data derived from a prospective preventive medicine program in Vorarlberg, Austria. From the 1970's, the major focus was set to screen for somatic disease especially for gynecological and breast disorders. As mental disorders were recognized as important factors contributing not only to quality of life [3], but also to somatic diseases, we added a questionnaire for mental well-being to our program in the early 1990's. Unfortunately, social security did not pay for these services. Although we are convinced that the low price for the questionnaire and its interpretation did not prevent any woman form participating, a possible bias due to monetary reasons cannot be fully excluded.

Previously published studies reported a high prevalence of depression in otherwise healthy women [3]. The majority of cases of depression and anxiety in women are undiagnosed and untreated [4–7]. Patients with these disorders also often present with physical symptoms including abdominal pain [8]. Recently, Sundström et al. reported a prevalence of 10.1 and 12.4% for major and minor depression, respectively, in women examined in a gynecologic outpatient clinic [9]. These results are in accordance with those obtained in our series indicating that these data might be reflective of a general European population. Of note, deterioration of well-being as well as the risk of developing depression is mostly overlooked in a general preventive medicine setting. As these problems seem to affect a significant number of women, the incorporation of easy-to-use questionnaires able to screen for mental problems to general preventive medicine programs must be strongly recommended.

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