

The influence of obesity in the sexual life of women in menopause

A case control study

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Summary: It seemed important to us to investigate sexuality during the post-menopausal and senile period to evaluate whether changes in sexual behaviour are related with endocrine-functional alterations brought on by menopause, or whether social-economic and environmental factors represent the principal cause. Thus 1,500 questionnaires were distributed to women aged from 50 to 87. Of the 1,500 questionnaires distributed, only 713 (47.53%) were returned completely filled-in. All women had been classified for age, civil status and life environment. Our statistic analysis does not seem to have singled out those factors that influence sexual activity in women of advanced age but shows only how age, indifferently from civil status and life environment, represents the most important factor. At the same age other factors, probably attached to psychological features and way of life and thus difficult to define and even less qualifiable, may be of influence, explaining a further percentage of control of those answers not explainable by age.

Key words: Sexuality; Menopause; Senescence.

INTRODUCTION

The profound changes, not only endocrine-functional, but also social-relational, which women undergo during the post menopausal period, represent a critical moment which, till a few years ago, was lived in a remissive way by women themselves. In reality, with the dismissal of some ta-

boos and extension of the average life, women face the menopausal and post menopausal period in a completely different way ^(1,2). Doctors are consulted more often about the alterations brought about by menopause and, in particular, women press on the changes that their sexual life may undergo ^(3,4,5).

Women of the year 2,000 still know that the menopause and post menopause period represent critical moments in their lives, but do not accept it as destiny any longer, as an ineluctable sign of progressive degrading of all biological and related functions ⁽⁶⁾. It seemed important to us to investigate sexuality during the post menopausal and senile period to evaluate whether changes in sexual beha-

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viour are related to endocrine-functional alterations brought about by menopause or whether the social-economic and environmental context represent the principal factors.

MATERIAL AND METHODS

Fifteen hundred questionnaires were distributed to women aged between 50 and 87. The questionnaire (fig. 1), consisted of two parts, the first containing general questions about age, school grade, civil status, and others, while the second part specifically investigated sexual behaviour. Of these 1,500 questionnaires, 50% were distributed among resthomes for the elderly (public or private) and the remaining 50% in social or recreation institutions and to women living at home. Only women older than 50 years who had been in amenorrhoea for at least 12 months, were considered in our study. The bedridden, immobilised and seriously ill and those unable to express their sexuality freely were excluded.

RESULTS AND DISCUSSION

Of the 1,500 questionnaires distributed, only 713 (47.53%) were returned completely filled-in; 287 (19.14%) were incomplete, leaving out the answers regarding sex; and the remaining 500 (33.33%) were not returned. In the first part of Table 1, Table 2 and Table 3, the data obtained from this research is summarised. Table 1 reports the distribution of double the number of women answering the questionnaire, in respect to age (divided into classes of 10) and with respect to sexual intercourse. In Table 2 the same women are classified regarding their civil status and in Table 3 for the modality of a factor called synthetically, "life environment"; this factor, essentially, is a combination of where the woman lives and the presence of a family (particularly of a husband). Thus, Table 1 studies the alterations in sexual behaviour in relation to age, while Table 2 and Table 3 examine the influence of social-environment factors like civil status and environment. Let us consider Table 1. A test had been

Table 1. — *Sexual activity stratified by age groups.*

Age	Yes No. (%)	No No. (%)	Total No. (%)
50-59	59 (8.3)	38 (5.3)	97 (13.6)
60-69	98 (13.7)	67 (9.4)	165 (23.1)
70-79	76 (10.6)	312 (43.7)	388 (54.4)
> 79	4 (0.5)	59 (8.3)	63 (8.8)
total	237 (33.2)	476 (66.7)	713 (100)

RESULTS OF STATISTICAL ANALYSIS

test percentage difference	8.49
line value at 1 per 1,000	3.37
test diff. %age is significant for over 1 per 1,000	8.49 > 3.3
<i>Test average difference</i>	11.89
line value at 1 per 1,000	3.37
test diff. average is significant for over 1 per 1,000	11.89 > 3.37
<i>Test Chi-square absolute</i>	137.24
line value at 0.5 per 1,000 (g.d.l. = 3)	17.73
test Chi-square is significant at 0.5 per 1,000	137.24 > 17.73
<i>Connection between sex/age</i>	0.44
term of connection indicates a degree of dependency of about 44%	44.19
<i>Index of age dissimilarity</i>	7.18
the index of dissimilarity indicates that women passing from group YES to those of group NO raises the average age about 7.2 years.	

previously done on the significant meaning of the difference between the two percentages of answers YES and NO altogether, (also valid for the other lists).

From the results obtained we can say for certain (99.9%) that the two percentages are significantly different, showing the NO to be double the YES. Our aim now is to study whether the presence of sexual intercourse is connected to age and in what measure. In other words, if age is a determining factor, the number of women answering YES (they have intercourse) will be far from those answering

Table 2. — *Sexual activity according to civil status.*

Civil status	YES regular freq.	YES relative freq.	NO regular freq.	NO relative freq.	Total regular freq.	Total relative freq.
Married	166	0.2328	166	0.2328	332	0.4656
Single	11	0.0154	67	0.0940	78	0.1094
Widows	45	0.0631	174	0.2440	219	0.3072
Divorced	15	0.0210	69	0.0968	84	0.1178
Total	237	0.3324	476	0.6676	713	1.0000

Absolute Chi-square test 79.75
line value at 0.5 per 1,000 (g.d.l. = 3) 17.73
the Chi-square test is significant at 0.5 per 1,000 79.75 > 17.73

Connection between sex/civil status 0.35
the connection indicates an interdependence of about 35% 35.17

NO (no intercourse); the difference being more evident when the influence of the age factor is greater. To evaluate the meaning of this difference we used two tests (test of difference of percentage of the two distributions and the Chi-square test) and to measure the dependent degree on age of the answers, we used two rates

(the connecting report and the rate of dissimilarity).

The test on difference in averages indicates how significant the different average age of women in group YES is with respect to that of group NO (the result having a very high certainty: 99.9%). The Chi-square test (different from the

Table 3. — *Occurrence of sexual intercourse.*

Life environment	YES regular freq.	YES relative freq.	NO regular freq.	NO relative freq.	Total regular freq.	Total relative freq.
Women alone at home	34	0.0477	90	0.1262	124	0.1739
Women with relatives at home	78	0.1094	131	0.1837	209	0.2931
Women with husbands at home	76	0.1066	80	0.1122	156	0.2188
Women alone in resthomes	45	0.0631	153	0.2146	198	0.2777
Women with husbands in rest- homes	4	0.0056	22	0.0309	26	0.0365
Total	237	0.3324	476	0.6676	713	1.0000

Absolute Chi-square test 33
line value at 0.5 per 1,000 (g.d.l. = 4) 20.00
the Chi-square test is significant at 0.5 per 1,000 33.90 > 20.00

Connection between sex/life environment 0.21
the term of connection indicates an inter-dependence of about 21% 20.65

previous one, is based on the difference between the frequency of answers in every single age class) also indicates a high removal significance (certainty probability being 99.95%). The sex/age connection gives us the measure and grade of dependence of answers from the age factor. The value it assumes is, as we can see from the list, 0.44, that is 44.19% in percentage rates. So, we can say that the presence or lack of sexual intercourse is connected or explained by age for a rate of 44%. The difference between the two age groups of women indicate that passing from the first group to the second, the average age increases by 7.2 years. From this result, we cannot definitely say that a woman past fifty years of age stops having intercourse about seven years after her present age. A last result comes after an appropriate arrangement of the lines in Table 1, Table 2 and Table 3. As we can see in the last part of Table 1 (in this case without doing any permutation of lines) the percentage of women who have intercourse decreases, when getting older, from 60.8% to 6.3% and consequently that of women declaring no intercourse increases passing from 39.2% to 93.7%. In short, we have an average in the frequency of answers passing from YES to NO in 18.2% of cases. The considerations done for Table 1 are also good for Table 2 and Table 3. Since the influence factor of the answers in these lists are of the qualitative (civil status, life environment) and disjunctive type (that is not orderly) some rates have not been calculated (tests of difference in averages, rates of dissimilarity) as they are based on the quantitative modality of the character object of analysis.

However, because of the strength of the results obtained, use of the Chi-square and the connecting relation, it seems sufficient to have an idea of the influence of these factors. Both in Table 2 and Table 3, the Chi-square test is again significant

with a probability of 99.95%. However we can observe the difference between the experimental value and that of the limit (79.75 and 17.73 in the first case and 33.90 and 20.00 in the second) inclines to a reduction compared to the case in able 1. The suspicion of a weaker connection between civil status and the answers, and above all between life environment and the answers, is also confirmed by the value of the connection term, which in the first case equals 35% (which means more towards a 0 than 1) and in the second case only 21%. The influence of these factors exists because the tests are significant but their degree is not more determinant than the age. Looking at the last part of Table 2 and Table 3 it is possible to examine the monotonous progress of the answering frequency to the varying form of civil status and environment (in this case it was necessary to reorder the lines of the initial tables, differently from what was done for Table 1). Also in this case we had more modest results with respect to the case of Table 1. In Table 2 passing from a married status to a single one, 12.0% of the cases moved from YES to NO. In Table 3 the percentage was of 11.1%. It is interesting to observe, in this case, how the condition of "women with husbands in resthomes" have a higher percentage of NO with respect to those of "women alone". This could be attributed to the fact that women in resthomes are older and because of their age are not able to lead an independent life at home; or another explanation could be the low number of cases (26) and therefore not representative of the sample of women in this condition. This observation emphasises the necessity for a deeper analysis of the relation existing between age and life environment. The connection that has emerged between life environment and the responses could again hide the connection between age and responses.

CONCLUSIONS

Our statistical analysis does not seem to have singled out those factors that influence sexual activity in women in advanced age but shows only how age, indifferently from civil status and life environment represents the most important factor. At the same age other factors, probably attached to psychological features and way of life and thus difficult to define and even less qualifiable, may be of influence, explaining a further percentage of control of those answers not explainable by age. The conclusion that can be made from our work is that sexual activity in advanced-aged women seems to be more influenced by functional factors rather than social-cultural factors, though this cannot be taken for granted, but valid only on the average of samples observed, even if these were numerous and statistically valid.

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