

Synopsis

Hearing Problems of Older Adults in Hong Kong

Institute of Human Communicative Research

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1,019 senior citizens aged sixty and over in Hong Kong were provided with one-stop hearing assessment and ear examination service during June to October 2004. Both older adults with and without hearing problems were eligible for this service and thus, this contributes to an objective evaluation of the hearing status of the older adults in Hong Kong. ENT specialists and audiologists conducted ear and hearing tests with professional assessment tools. Examination data and questionnaire results were collected for researchers to look into the prevalence of hearing impairment and its implications on emotional health among older adults in Hong Kong.

PREVALENCE OF HEARING LOSS

Only 19.9% of the sample population had normal hearing. About 43% had mild hearing loss and this account for the largest proportion in the sample population. There were 23.5% and 9.4% older adults with moderate and moderately severe hearing problems respectively, and 4.2% with severe to profound hearing loss.

The figures also show that there was a correlation between age and hearing loss. The percentage of people with hearing loss increases with age: from 14.9% in age group between 60 and 65, to 81.3% in the group over 86.

Among those older adults with hearing problem, 43% refused any medical referral or wearing hearing aids, which could affect their quality of life and cause emotional problems.

PREVALENCE OF HEARING HANDICAP VERSUS HEARING LOSS IN HONG KONG OLDER ADULTS

The prevalence of hearing handicap with a score of over 8 from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) was comparable with the prevalence of hearing loss from average pure-tone audiometry (PTA) threshold ≥ 40 dBHL. The overall accuracy reached 67%.

For older adults, with hearing handicap (HHIE-S > 8), the probability with measured hearing loss ≥ 40 dBHL was 58% (Positive predicative value); without hearing handicap (HHIE-S ≤ 8), the probability with measured hearing loss < 40dBHL was 72% (Negative predicative value). The overall accuracy was about 67%. That means we have nearly 70% of accuracy in using the Hearing Handicap Inventory for the Elderly – Screening (HHIE-S) to assess the presence or absence of a 40dB hearing loss for older adults.

The 10 test items of HHIE-S in Chinese and English are listed as follows:

Chinese version

1. 在遇見新相識的人時，聽力問題有否讓你感到尷尬？
2. 在和家人交談時，聽力問題有否讓你感到受挫折？

3. 當別人囁囁細語時，你有否感到聆聽困難？
4. 聽力問題有否令你感到殘缺？
5. 聽力問題有否令你在探望朋友,家人或鄰居時感到困難？
6. 聽力問題有否令你參加宗教或其他活動較你希望能參加的為少？
7. 聽力問題有否令你和家人或朋友吵架？
8. 聽力問題有否令你聆聽電視或收音機時感到困難？
9. 你認為任何的聽力問題有否影響你的個人或社交生活？
10. 和家人或朋友在餐廳時，聽力問題有否令你感到困難？

English version

1. Does a hearing problem cause you to feel embarrassed when you meet new people?
2. Does a hearing problem cause you to feel frustrated when talking to members of your family?
3. Do you have difficulty hearing when someone speaks in a whisper?
4. Do you feel handicapped by a hearing problem?
5. Does a hearing problem cause you difficulty when visiting friends, relatives, or neighbors?
6. Does a hearing problem cause you to attend religious services or other activities less often than you would like?
7. Does a hearing problem cause you to have arguments with family members?
8. Does a hearing problem cause you to have difficulty when listening to TV or radio?
9. Do you feel that any difficulty with your hearing limits/hampers your personal or social life?
10. Does a hearing problem cause you difficulty when in a restaurant with relatives or friends?

HEARING IMPAIRMENT AND DEPRESSION SYMPTOMS IN HONG KONG OLDER ADULTS

Analysis from the results of questionnaire and geriatric depression scale (GDS) showed that only 11.3% of older adults with normal or mild hearing loss had depression symptoms while the figure increased to 19.2% in the group with moderate hearing loss or above. The correlation between hearing loss and depression was statistically significant.

Other than the effect of the known associating factors, e.g. self perceived health, living expenses, living arrangement satisfaction, admission to hospital, history of mental illness, etc., the logistic regression analysis indicated that hearing loss had an independent association with depression symptoms in our study group.

The study strongly suggested that hearing loss is closely linked to emotional well-being and quality of life. If not properly treated, hearing loss can cause depression, sadness, paranoia, anxiety and decrease in social activity.

Depressive Symptoms Vs Hearing Loss

Hearing	Older adults Normal	Older adults Depressive	Total
≤ 40 dBHL	533	68 (11.3 %)	601
> 40 dBHL	253	60 (19.2 %)	313
Total	786	128	914

Chi-square = 10.4, df = 1, p = 0.001

Geriatric Depression Scale

1. Are you basically satisfied with your life?
2. Have you dropped many of your activities and interests?
3. Do you feel that your life is empty?
4. Do you often get bored?
5. Are you in good spirits most of the time?
6. Are you afraid that something bad is going to happen to you?
7. Do you feel happy most of the time?
8. Do you often feel helpless?
9. Do you prefer to stay at home, rather than going out and doing new things?
10. Do you feel you have more problems with memory than most?
11. Do you think it is wonderful to be alive now?
12. Do you feel pretty worthless the way you are now?
13. Do you feel full of energy?
14. Do you feel that your situation is hopeless?
15. Do you think that most people are better off than you are?

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老人抑鬱短量表

以下的問題是人們對一些事物的應感受，答案沒有對與不對。請想一想，在過去一星期內，你是否曾有以下的感受。如有的話，請選擇「是」。若無的話，請選擇「否」。

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|----------------------------------|---|---|
| 1. 你基本上對自己的生活滿意嗎？ | 是 | 否 |
| 2. 你是否已放棄了很多以往的活動和嗜好？ | 是 | 否 |
| 3. 你是否覺得生活空虛？ | 是 | 否 |
| 4. 你是否常常感到煩悶？ | 是 | 否 |
| 5. 你是否很多時感到生活愉快？ | 是 | 否 |
| 6. 你是否害怕將會有不好的事情發生在你身上呢？ | 是 | 否 |
| 7. 你是否大部份時間感到愉快呢？ | 是 | 否 |
| 8. 你是否常常感到無助？ | 是 | 否 |
| 9. 你是否寧願留在院舍 / 屋企裡，而不出外做些有新意的事情？ | 是 | 否 |
| 10. 你是否覺得你比大多數人有多些記憶的問題？ | 是 | 否 |
| 11. 你認為現在活着是一件好事嗎？ | 是 | 否 |
| 12. 你是否覺得自己現在一無是處呢？ | 是 | 否 |
| 13. 你是否感到精力充足？ | 是 | 否 |
| 14. 你是否覺得自己的處境無望？ | 是 | 否 |
| 15. 你覺得部份的人的境況比自己好嗎？ | 是 | 否 |

CONCLUSION

- The estimated prevalence of hearing loss in the older adults was 75.9%. Among this group, 43% refused medical referral or hearing aid rehabilitation.
- The prevalence of depression symptoms in older adults with hearing loss was significant with 19.2%, which means that nearly every 1 in 5 of older adults with hearing loss has symptoms of depression.
- Public awareness on the negative effects of hearing loss should be promoted.
- Timely diagnosis and rehabilitation procedures can prevent the deterioration of hearing abilities and improve the communication skills of older adults.
- Attention to the problem would significantly improve the well-being and mental health of older adults.

NEXT STAGE

The Institute will investigate the effect of hearing aid rehabilitation on the psychological status of older adults with hearing impairment.