

# COMPREHENSIVE GERIATRIC ASSESSMENT IN PRACTICE: WHAT DO PATIENTS SAY?

## KLİNİK PRATİKTE KAPSAMLI GERİATRİK DEĞERLENDİRME: HASTALAR NE DÜŞÜNÜYOR?

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### ABSTRACT

**Objective:** Comprehensive Geriatric Assessment (CGA) is one of the cornerstones of geriatric medicine. In this study, we aimed to find out how satisfied patients aged 60 and over were with the application of CGA and whether they would express these complaints if geriatric-syndromes were not questioned.

**Materials and Methods:** Patients who applied to the geriatric outpatient-clinic were included. An 18-question survey was applied by the geriatric nurse. The satisfaction and benefit expectations of the patients regarding both the application of CGA and specific sub-areas of CGA (urinary- fecal incontinence, falls, sleep, Mini-Nutritional-Assessment, Mini-Mental-State-Examination) were evaluated. They were asked whether they would express their complaints if these questions were not asked.

**Results:** One-hundred-fifty patients were included in the study. The mean-age was 73.7±7 years. One-hundred-forty-eight patients were satisfied with the CGA and 139 of them thought it was beneficial. Seventy-three (49%) patients had urinary-incontinence, and 29 (19%) patients said that they would not report urinary-incontinence if this question had not been asked. Seventeen patients (11%) had fecal-incontinence and 16% of all patients said that they would not report fecal-incontinence if this question had not been asked. Twenty-nine of 85 patients stated that although they had a history of falling within the last year, they would not have stated this situation if this question was not asked. Ninety-three percent of the patients stated that they were satisfied with the Mini-Mental-State-Examination and that they thought this test would be beneficial for them.

### ÖZET

**Amaç:** Kapsamlı-Geriatrik-Değerlendirme (KGD) geriatriğin temel taşlarından. Bu çalışmada 60 yaş ve üzeri hastaların KGD'nin uygulanmasından ne kadar memnun olduklarını ve geriatric sendromlar sorgulanmasaydı; bu şikayetleri ifade edip etmeyeceklerini öğrenmeyi amaçladık.

**Gereç ve Yöntem:** Geriatri polikliniğine başvuran hastalar dahil edildi. Geriatri hemşiresi tarafından 18 soruluk memnuniyet anketi uygulandı. Hastaların, hem KGD uygulanmasıyla ilgili hem de KGD'nin bazı alt-alanlarından özgün olarak (idrar-dışkı inkontinansı, düşme, uyku, Mini-Nütrisyonel-Değerlendirme) memnuniyet ve faydalanım beklentileri değerlendirildi. Kendilerine bu sorular sorulmasaydı şikayetlerini ifade edip etmeyecekleri soruldu.

**Bulgular:** Çalışmaya 150 hasta dahil edildi. Ortalama yaş 73,7±7 yıl idi. Yüzelli hastanın 148'i KGD'nin yapılmasından memnun olduğunu, 139'u kendileri için faydalı olduğunu düşündüklerini belirtti. Yüz elli hastadan 73'ünün (%49) üriner inkontinansı vardı ve 150 hastanın 29'u (%19) bu soru kendilerine sorulmamış olsaydı idrar inkontinansı olsa dahi belirtmeyeceklerini söylediler. On yedi hastanın (%11) fekal-inkontinansı mevcuttu ve tüm hastaların %16'sı bu soru kendilerine sorulmasaydı fekal-inkontinansı olsa dahi belirtmeyeceklerini söylediler. Düşme hikayesi olan 85 hastanın 29'u son bir yıl içinde düşme hikayesi olmasına rağmen bu soru kendilerine sorulmamış olsa bu durumu belirtmeyeceklerini belirtti. Hastaların %93'ü Mini-Mental-Testin yapılmasından memnun olduklarını ve bu testin kendilerine faydası olacağını düşündüklerini belirttiler.

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**Conclusion:** Although it takes time and is tiring, CGA is satisfactory for patients and enables the recognition of geriatric syndromes that may remain hidden.

**Keywords:** Comprehensive geriatric assessment, satisfaction, geriatric syndrome, benefit

**Sonuç:** Vakit alması ve yorucu olmasına rağmen KGD hastalar için memnuniyet vericidir ve gizli kalabilecek geriatrik sendromların tanınmasını sağlamaktadır.

**Anahtar Kelimeler:** Kapsamlı geriatrik değerlendirme, memnuniyet, geriatrik sendrom, faydalanım

## INTRODUCTION

The elderly population aged 65 and over has been increasing all over the world and in our country. According to the data of the Turkish Statistical Institute for 2019, while the ratio of the elderly population in the total population was 8.0% in 2014, it increased to 9.1% in 2019 (1).

The encounter with the elderly population in health services is increasing with ageing of the population. Evaluation of older adults should be done with a "comprehensive geriatric assessment" (CGA), which includes physical, functional, environmental, social, and psychological evaluation. CGA is an interdisciplinary evaluation in which multiple problems of elderly individuals are revealed, these problems are defined and explained, the reserves and stability of individuals are classified, their capacities and long-term needs are determined, a coordinated treatment plan is developed, and multifaceted medical, functional, psychosocial, and environmental evaluations are made (2).

The aim of CGA is to protect the health of older adults with preventive medicine and early diagnosis of diseases; to increase the functional capacity and quality of life of older adults; to optimize medical care; screening for geriatric syndromes such as depression, dementia, delirium, falls, pressure injuries, osteoporosis, polypharmacy, vision and hearing problems, malnutrition, sarcopenia and planning their treatment and follow-up; to take appropriate care of the patient by providing optimum environmental and social support; improve care costs and results; to prevent repeated and unnecessary hospital admissions and unnecessary tests (3). It is also used to identify the frail older adults, who are the most at risk for geriatric problems.

CGA is an examination that requires attention and knowledge and takes quite a long time. It is known that some patients may not want to have the tests done because it is a time-consuming process for both the patient and the physician, and some physicians may be hesitant to make all the evaluations.

Patient satisfaction is an important measure of patient-reported experience and can also be viewed as an outcome in itself and as an integral part of the outcomes of any healthcare organization. It has been identified as very important for the assessment of healthcare quality.

In addition, patient satisfaction can be defined as the measurement of needs and desires and affects patient compliance and continuity of care. For these reasons, the evaluation of patient satisfaction in the procedures performed is of particular importance

In this study, we aimed to investigate whether patients aged 60 and over are satisfied with the application of CGA, their expectation of benefit, and whether they would spontaneously express these syndromes if CGA was not performed.

## MATERIALS AND METHODS

### Study population

Patients who were aged 60 and over and applied to the outpatient-clinic of Istanbul University, Istanbul Medical Faculty were included in the study. All patients who applied to the geriatric outpatient clinic between February 2015 and April 2015, approved to participate in the survey, and underwent CGA were included in the study. Patients who could not come to the outpatient clinic because they were bedridden and were followed only by their relatives, patients who could not cooperate, and patients who could not understand and answer questions were not included in the study. Among 161 patients who applied to the Geriatrics outpatient clinic, 11 were excluded from the study because they did not meet the inclusion criteria. All the remaining 150 patients agreed to participate in the study. The study was designed as descriptive. Ethical approval was obtained from the ethics committee of Istanbul University, Istanbul Faculty of Medicine (Date: 28.04.2021, No: 190217). Informed consent was obtained from all participants.

### Comprehensive geriatric assessment

Standardized Mini-Mental State Examination (SMMSE) was administered to evaluate cognitive and mental status. SMMSE is a test consisting of eleven items and evaluated over a total of 30 points, gathered under five main headings as orientation, recording memory, attention, and calculation, recall and language. The cut-off point for the total score was determined as 23-24 points (4-6).

Yesavage Geriatric Depression Scale was used for mood assessment. This test consists of 30 self-reported, easy-to-answer questions for the older adults. It is a scale that does not include symptoms that may occur due to non-depressive causes, especially somatic symptoms such as sleep

disorders, sexual dysfunction, aches and pains in the body, and the answers are only "yes" and "no". A total score of 0-10 indicates normal, 11-13 probable depression, and 14 and above indicates definite depression (7, 8).

Nutritional assessment was performed with the Mini Nutritional Assessment-Short Form (MNA-SF). This test is scored between 0-14. A score of 0-7 is considered "malnutrition", a score of 8-11 is considered "at risk of malnutrition", and a score of 12 and above is considered "normal" (9, 10).

Presence of urinary incontinence was questioned, and if present, the type (stress, urge, mixed, overflow, functional) was recorded. In addition, fecal incontinence was questioned. Falls in the past year were questioned.

While assessing sleep problems, it was questioned whether the patient had difficulty in falling or staying asleep, whether there were involuntary early awakenings, whether he found his sleep sufficient, frequency of waking up at night, and whether he used sleeping pills. In addition, the presence of REM sleep behavior disorder, obstructive sleep apnea syndrome and restless legs syn-

drome were questioned. In case of any of these, it was considered that the patient has a "sleeping problem".

### Satisfaction survey

An 18-question satisfaction survey (Table 1) was administered to the patients by the geriatric nurse in a separate room immediately after the physicians performed the CGA, with a face-to-face interview. Patients were asked to answer questions as yes, no, or maybe. It was especially emphasized that the answers of the patients in this questionnaire would certainly not affect their treatment. In the questionnaire, the satisfaction and utility expectations of the patients regarding the application of CGA, both general and specific to some sub-domains of CGA (urinary incontinence, fecal incontinence questioning, falling questioning, sleep questioning, Mini Nutritional Assessment, and Mini-Mental-State-Examination), were evaluated. They were also asked whether they would have expressed these complaints if they had not been asked these questions.

### Statistical analysis

Statistical analyzes were performed using the SPSS 21.0 program. After normal distribution analysis was per-

**Table 1:** Survey questions and answers

	Yes (%)	No (%)	Maybe (%)
Overall, were you satisfied with these tests?	148 (98.7%)	1 (0.7%)	1 (0.7%)
Do you think these tests will be useful to you?	139 (92.7%)	4 (2.7%)	7 (4.7%)
Were you satisfied with the implementation of the SMMSE?	145 (96.6%)	3 (2%)	2 (1.4%)
Do you think performing the SMMSE was beneficial for you?	140 (93.3%)	7 (4.7%)	3 (2%)
Were you satisfied with the implementation of the Geriatric Depression Scale?	146 (97.3%)	4 (2.7%)	-
Do you think performing the Geriatric Depression Scale was beneficial for you?	139 (92.6%)	7 (4.7%)	4 (2.7%)
Were you satisfied with the questioning about fall?	147 (98%)	1 (0.7%)	2 (1.3%)
If this question was not asked, would you state that you had falls?	114 (76%)	35 (23.3%)	1 (0.7%)
Were you satisfied with the sleep questioning?	149 (99.3%)	-	1 (0.7%)
If this question was not asked, would you state that you have a sleep problem?	138 (92%)	10 (6.7%)	2 (1.3%)
Were you satisfied with the nutrition test application?	97	1.5	1.5
Do you think applying a nutrition test was beneficial for you?	146 (97.3%)	2 (1.3%)	2 (1.3%)
MNA test A (decreased appetite); If this question was not asked, would you state that you have a decrease in appetite?	127 (84.7%)	21 (14%)	2 (1.3%)
MNA test B (weight loss); If this question was not asked, would you express weight loss?	129 (86%)	18 (12%)	3 (2%)
Were you satisfied with the urinary incontinence questioning?	149 (99.3%)	-	1 (0.7%)
If this question was not asked, would you state that you have urinary incontinence?	120 (80%)	30 (20%)	-
Were you satisfied with the fecal incontinence questioning?	148 (98.7%)	2 (1.3%)	-
If this question was not asked, would you state that you have fecal incontinence?	124 (82.6%)	24 (16%)	2 (1.3%)

SMMSE: Standardized Mini Mental State Examination, MNA: Mini Nutritional Assessment

formed, numerical data were given as mean±standard deviation. Categorical data were given as percentages.

## RESULTS

The mean age was 73.7±7 years (min 60, max 92 years). Thirty-nine (26%) were male, 111 (74%) were female. Seventy-three (48.9%) patients had urinary incontinence, 17 (11%) patients had fecal incontinence, 85 (56.7%) patients had a history of falling in the past year, and 63 (42%) patients had sleep problems. According to the loss of appetite and weight loss questionnaires included in the MNA-SF, 32 (21.3%) patients had loss of appetite and 41 (27.3%) patients had weight loss. Of the 150 patients who participated in the study, 148 (98.7%) stated that they were satisfied with the CGA, and 139 (92.7%) of these patients stated that they thought it was beneficial for them. The detailed results of the 18 questions in the survey were summarized in Table 1.

Twenty-two (14.7%) of 73 (48.7%) patients with urinary incontinence stated that they would not have stated this if this question had not been asked. Seven (4.7%) of 17 (11.3%) patients with fecal incontinence stated that although they had fecal incontinence, they would not have stated it if this question had not been asked. Twenty-nine (19.4%) of the 85 (56.7%) patients with a history of falling stated that although they had a history of falling within the last year, they would not have stated this situation if this question had not been asked to them. Seven (4.7%) of 63 (42%) patients with sleep problems stated that although they had sleep problems, they would not have stated this if this question had not been asked. Only 3 (2%) patients out of 41 (27.3%) patients with weight loss stated that they would not have stated this if they had not been asked this question despite their weight loss. Of the 32 (21.3%) patients with loss of appetite, only 1 (0.7%) patient stated that if this question had not been asked, he would not have stated this situation although he had loss of appetite. The detailed results were shown in Table 2.

## DISCUSSION

In this study, it has been shown that the CGA is pleasing to patients and is useful in detecting geriatric syndromes that may remain hidden if not asked. It has been observed that especially urinary incontinence, fecal incontinence, and falls can remain hidden more than other geriatric syndromes.

In the international literature, studies on CGA and patient satisfaction are limited. In the study of four-item patient satisfaction surveys conducted by Ekerstad et al. in the emergency unit, it was shown that acute care in a CGA unit with direct admission was associated with higher levels of patient satisfaction compared to traditional acute care (11). Renoux et al., in their study to evaluate patient satisfaction in primary care after geriatric evaluation, found that 72% of the participants (n=89) were completely satisfied with the evaluation. In our study, 99% of the patients were satisfied with these tests; 93% of the patients reported that they thought these tests would be beneficial for them (12). Daure et al. evaluated geriatric evaluation in primary care from the physician's side this time and evaluated the satisfaction of 26 general practitioners (GPs) in performing CGA. 92% of the GPs surveyed expressed an 'extremely positive' or 'positive' opinion about the detection of previously unidentified health problems and the improvement of patient care after assessment. In addition, 73% of GPs stated that they had better knowledge about frailty syndrome and cognitive impairment after evaluation (13).

Geriatric syndromes refer to clinical conditions that are frequently seen in older adults, which can impair quality of life and increase morbidity and mortality. Common geriatric syndromes are malnutrition, immobilization, depression, dementia, delirium, falls, incontinence, pain, osteoporosis, pressure ulcers, sleep problems, and polypharmacy. Geriatric syndromes often remain undetected, hidden, and therefore cannot be treated unless questioned by a healthcare professional. In the study

**Table 2:** The results of the questionnaire

	n (%)	Those who would not report a problem despite having it if a question about it had not been asked: n(%)	Those who have complaints but say "I wouldn't have stated it if the question wasn't asked n(%)	Those who have no complaints and say "I wouldn't have stated it if the question had not been asked n(%)
Falls	85 (56.7%)	35 (23.3%)	29 (19.4%)	3 (2%)
Sleep problem	63 (42%)	10 (6.7%)	7 (4.7%)	3 (2%)
Decrease in appetite	32 (21.3%)	21 (14%)	1 (0.7%)	15 (10%)
Weight loss	41 (27.3%)	18 (12%)	3 (2%)	10 (6.7%)
Urinary incontinence	73 (48.7%)	30 (20%)	22 (14.7%)	7 (4.7%)
Fecal incontinence	17 (11.3%)	24 (16%)	7 (4.7%)	16 (10.7%)

of Iliffe et al., it was determined that the needs of the older adults in the areas of senses (vision and hearing), physical competence (mobility and falls), incontinence, cognition and emotional stress (depression and anxiety) were not met in primary care (14). In the geriatric screening study of Piccoliori et al. involving 894 patients, 7.8 of 32 potential problems were identified per patient, and 1.4 of these problems were unknown to the general practitioner (15). Rjin et al. observed that many geriatric syndromes were defined with CGA, but only a few of them were considered as problems by the patient. In the study of Rjin et al., the median of geriatric syndromes determined per participant was eight, while the median of geriatric syndromes recognized by the participant was one (16). In our study, some of the participants stated that they would not state this as a complaint unless they were asked about the presence of geriatric syndromes. Urinary incontinence is a geriatric syndrome that has profound effects on the quality of life of geriatric patients and their caregivers (17). Despite this, in our study, 22 (30%) of 73 patients with urinary incontinence stated that they would not have stated this situation if this question had not been asked to them. Seven (41%) of 17 patients with fecal incontinence stated that they would not have stated that they had fecal incontinence if this question had not been asked to them. As a matter of fact, fecal incontinence is a syndrome that has a great psychological impact and significantly impairs the quality of life of geriatric patients and caregivers. Moreover, the economic cost of the resources used in its treatment becomes a major problem for the social health system (18). For this reason, it is important to question fecal incontinence as a part of CGA for its early diagnosis and necessary interventions. Falls, another geriatric syndrome, are the main cause of morbidity and disability in older adults. More than one-third of people aged 65 and over fall each year, and in half of such cases, falls recur. The risk doubles or triples if there is a cognitive impairment or a previous history of falls. In our study, 29 (34%) of 85 patients with a history of fall in the last year reported that they would not report this situation to the doctor unless asked. In other words, if we did not do this questioning for the elderly patients who had falls in our study, approximately one third of them would not report their falls as a complaint.

Almost 40% of the older adults cannot be fed enough to meet their daily energy needs, and two out of three older adults skip a meal (19). In the study in which the nutritional status of older adults who applied to geriatric outpatient clinics in Türkiye were screened by MNA, the rate of malnutrition was found to be 6.9%, and the rate of those at risk of malnutrition was 26.7% (20). Anorexia prevalence was reported 21.5% in community dwelling older adults and independently associated with decreased muscle mass and strength in Türkiye (21, 22). Malnutrition is associated with prolonged hospitalization, increased

risk of falls, decreased physical function, poor quality of life, increased risk of life-threatening complications, and increased mortality. It has also been shown to be associated with higher healthcare costs (23, 24). We have seen in our study that a geriatric syndrome, whose prevalence, and results are so important for the elderly, cannot be detected in some patients and the necessary interventions cannot be made unless asked by the doctor.

### Limitations of the study

There are some limitations of our study. The study was descriptive and performed in a three-month period, therefore the number of patients was low. Although the patients were informed that it would not affect their treatment during the filling out of the questionnaire, a falsely high satisfaction rate may have been detected due to face-to-face interviews. On the other hand, they may have answered the question "Would you have told me if we hadn't asked about the existence of geriatric syndromes?" as "I would have said yes" because of the hesitation from the face-to-face interview. In summary, the conditions for filling out the survey were not ideal, but we do not think this situation greatly affected the results. In our study, only quantitative methods were used to evaluate the satisfaction of individuals. However, the use of qualitative research methods as well as quantitative methods will provide a more in-depth examination of the subject by obtaining information about people's motivations, thoughts and attitudes. In particular, it would be helpful to add a qualitative assessment to gain insight into the underlying reasons why people "wouldn't have said their complaints if they hadn't been asked". On the other hand, the CGA satisfaction survey was conducted for the first time in our country and the satisfaction of specific CGA subheadings was evaluated for the first time in our country. However, the fact that some specific areas, not all subdomains of CGA, were evaluated in the satisfaction survey can be considered as a limitation.

### CONCLUSION

The patients found the CGA application very satisfactory and stated that it was beneficial. In addition, CGA provides recognition of geriatric syndromes that may remain hidden. Although geriatric syndromes are common clinical conditions in older adults, which are known to cause deterioration in quality of life, decrease in functionality, increase in morbidity and even mortality, we see that some geriatric syndromes are not reported to the doctor unless asked in approximately one third of the patients. This demonstrates the importance of screening for geriatric syndromes that are a substantial part of CGA.

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**Informed Consent:** Written consent was obtained from the participants.

**Ethics Committee Approval:** This study was approved by the Ethics Committee of Istanbul University, Istanbul Faculty of Medicine (Date: 28.04.2021, No: 190217).

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