

# Comparison of emergency department and psychiatry physicians' views on decision-making capacity cases in the grey zone

## *Gri bölgedeki karar verme kapasitesi vakalarına ilişkin acil servis ve psikiyatri hekimlerinin görüşlerinin karşılaştırılması*

Harun Olcay Sonkurt<sup>1</sup>, Şengül Tosun Altınöz<sup>1</sup>, Akın Coşkun<sup>2</sup>, Ali Ercan Altınöz<sup>3</sup>

<sup>1</sup>M.D., Private Practice, Eskisehir, Turkey

<sup>2</sup>M.D., Private Practice, Ankara, Turkey

<sup>3</sup>Assoc. Prof., Department of Psychiatry, Eskisehir Osmangazi University, Eskisehir, Turkey

### SUMMARY

**Objective:** The aim of this study is to demonstrate the level of reconciliation between different medical branches, decision-making processes over the same facts, both among themselves and with others. **Method:** An online survey was created with three cases and six questions in the grey area related to the decision-making capacity (DMC) situations. Surveys were sent to participants through their e-mails registered in hospital systems. A total of 165 physicians participated in the study. The first scenario concerned an unstable patient with gastrointestinal bleeding and major depression requesting discharge despite medical advice. The second scenario included the discharge request of a patient who was on the border of pulmonary insufficiency with a severe asthma attack. The final scenario was about a homeless person with chest pain that occurred at the time of alcohol withdrawal, demanding discharge, at a point where a heart attack wasn't excluded. **Results:** 54% of psychiatry specialists, 77% of psychiatry residents, 82% of emergency medicine specialists and 76% of emergency medicine residents stated that DMC was intact for scenario 1. For scenario 2, these rates were determined as %88, %90, %76, %71 while for scenario 3 they were %44, %35, %44 and 47%, respectively. Among the psychiatrists and residents, a statistically significant difference was found between the two groups only in scenario 1. **Discussion:** Consistent with the literature, it was observed that the interrater agreement of DMC decisions between different medical branches was low. Differences can be explained by different experience years, educational differences, evaluating basic decision-making competencies with different degrees of importance and differences in malpractice concerns.

**Key Words:** Decision-making capacity, grey area, competency evaluation

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### ÖZET

**Amaç:** Bu çalışmanın amacı, farklı meslek gruplarından değerlendiricilerin, aynı olgular üzerinden karar verme süreçlerinin hem kendi aralarında hem de diğerleriyle olan uzlaşma düzeyini ortaya koymaktır. **Yöntem:** Karar verme kapasitesi (KVK) ile ilgili gri alanda üç vaka ve altı soru ile çevrimiçi bir anket oluşturulmuştur. Anketler, katılımcılara e-posta adresleri üzerinden gönderilmiştir. Çalışmaya toplam 165 hekim katılmıştır. Senaryolardan birincisi, anstabil gastrointestinal kanaması ve majör depresyonu olan bir hastanın tıbbi önerilere karşın, taburcu olma talebiyle ilgiliydi. İkinci senaryo, ciddi astım atağı ile pulmoner yetmezlik sınırında olan hastanın taburculuk talebini içermektedir. Son senaryo ise evsiz bir bireyin alkol yoksunluğu belirtilerinin olduğu anda ortaya çıkan göğüs ağrısının kalp krizi dışlanmadan taburculuk talebi hakkındaydı. **Bulgular:** Psikiyatri uzmanlarının %54'ü, psikiyatri araştırma görevlilerinin %77'si, acil tıp uzmanlarının %82'si ve acil tıp araştırma görevlilerinin %76'sı senaryo 1 için KVK'nin korunduğunu belirtmiştir. Senaryo 2 için bu oranlar %88, %90, %76, %71 iken senaryo 3 için sırasıyla %44, %35, %44 ve %47 olarak bulunmuştur. Psikiyatristler ve araştırma görevlileri arasında sadece senaryo 1'de iki grup arasında istatistiksel olarak anlamlı bir fark bulunmuştur. **Sonuç:** Literatürle uyumlu olarak, önemli sayıda vakada farklı tıp dalları arasında KVK kararlarının tutarlılığının düşük olduğu gözlemlendi. Farklılıklar, farklı deneyim yılı, eğitim farklılıkları, temel karar verme yetkinliklerinin farklı önem dereceleriyle değerlendirilmesi ve malpraktis kaygılarındaki farklılıklar ile açıklanabilir.

**Anahtar Sözcükler:** Karar verme kapasitesi, gri alan, yeterlilik değerlendirmesi

## INTRODUCTION

Decision-making capacity (DMC) is defined as “the minimum conditions required for individuals to have the ability to make decisions about themselves” (1). It is also defined as the cognitive potential that an individual can use to make rational decisions includes the processes of understanding, evaluating, making decisions, and expressing decisions (2). Understanding the medical condition and treatment alternatives, being able to make rational decisions in favor of or against treatment, understanding the personal consequences associated with a particular treatment choice, and deciding on a treatment option are the four main areas evaluated when examining the DMC (3). Although psychiatrists are often consulted, every physician can evaluate DMC and encounter situations that need to be evaluated.

Situations in which DMC assessment is requested are often seen by physicians as time consuming and complex (4). The most common condition in which DMC assessment is requested is when the patient refuses treatment. It was reported that 3% to 25% of psychiatric consultations were associated with DMC assessment and approximately 25% of these patients are found to have impaired DMC (4). Several factors make DMC assessments even more difficult, such as DMC is not a global structure, the person's diagnosis may influence the DMC decision, cognitive impairment does not directly determine DMC and DMC is not a static entity (2). It was reported that especially the “grey area” DMC cases are found to be most challenging. Seyfried et al. define “grey area” as “cases of marginal capacity” or “cases between obvious capacity and obvious incapacity” (5). Many studies have shown that the interrater agreement of DMC assessment between clinicians is quite low, especially in assessments without any assessment tool (3,5,6).

In studies where patient scenarios in different medical contexts are evaluated by different fields, there are significant differences between physicians and different professions in decisions regarding DMC. In a study conducted among psychology students, it was determined that physicians attribute the most importance to the principle of "do no

harm" as the basic framework in the decision-making process (7), another study found that clinicians' individual value judgments could influence DMC decisions. (8). In a study conducted in 2016 by Armontrout et al., it was found that there were significant differences between DMC assessments of forensic psychiatrists, lawyers and consultation-liaison psychiatrists (9). In particular, the study found that consultation psychiatrists considered patients' DMC to be impaired at a lower rate than forensic psychiatrists and lawyers (9).

Although DMC is evaluated under elective conditions and often by psychiatrists with consultation, it may also need to be evaluated by physicians other than psychiatry and in emergency room conditions where rapid decision-making can be vital. Although studies on DMC assessments have often been conducted among psychiatrists to date, there are no studies on DMC decisions of emergency department physicians on this issue. The aim of this study is to demonstrate the level of reconciliation between evaluators from different professional groups, decision-making processes over the same facts, both among themselves and with others. In previous studies, there is no data regarding the DMC decisions of psychiatry and emergency department residents. In this study, we also aimed to compare views on DMC regarding grey area cases of residents, who frequently encounter situations where DMC assessment is required. In this way, we aimed to evaluate the role of experience and training background in DMC assessments. In light of the literature data, it was hypothesized that the DMC interrater agreement between emergency doctors and psychiatrists on different scenarios was low. It was also hypothesized that, taken the previous literature data into consideration, interrater agreement between specialists and residents was also low on all three scenarios.

## METHOD

The used measurement tools and pattern in this study are taken from a previous study on this issue by Armontrout et al. (9). Three cases and six questions in the grey area related to the DMC situation prepared by the authors two of whom are senior consultant and forensic psychiatrists with extensive

experience in DMC, were translated into Turkish with the permission of the authors.

Sociodemographic data, case vignettes and DMC assessment questions were sent to the participants via Google Forms, an online survey tool. Unlike the study of Armontrout et al., all evaluators were not only selected from the field of psychiatry, but also emergency medicine physicians were also included in the study. Psychiatry specialists and residents, as well as emergency medicine specialists and residents were included in the study.

The first scenario concerned an unstable patient with gastrointestinal bleeding and major depression requesting discharge despite medical advice. The second scenario included the discharge request of the patient who was on the border of pulmonary insufficiency with a severe asthma attack. The final scenario was about a homeless person with chest pain that occurred at the time of alcohol withdrawal, demanding discharge, at a point where a heart attack wasn't excluded.

Surveys were sent to participants through their e-mails registered in hospital systems or through the e-mail groups they were involved in. The survey was sent to a closed mail group where all members consisted of Turkish psychiatrists, and another closed hospital mail group where the members consisted of emergency doctors. Inclusion criteria were acceptance to the participation, being a psychiatry or emergency physician, and having at least 1 year experience in the current medical profession. Those who were not fitting to these criteria were excluded from the study. At the beginning of the questionnaire, participants were sent a brief explanation about the study and participation requirements, and the survey responses were collected on a voluntary basis. 165 people who met the criteria and filled out the questionnaire were included in the study. Participants were asked whether the cases in the scenarios specified had DMC, and their self-confidence in their decisions was assessed with a 5-point Likert-type scale. Raters were asked whether the patient's DMC is intact in a dichotomized choiced model, whereas self-confidence level were rated on a 1-5 scale. The study was approved by the Osmangazi University Clinical

Research Ethics Committee on April 18, 2017, with a decision number 117.

IBM SPSS Statistics 21.0 (IBM Corp Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.) program was used in the application of the analyzes. Continuous data are given as mean  $\pm$  standard deviation. Categorical data is given as percentage (%). The Shapiro Wilk test was used to investigate the suitability of data for normal distribution. In comparison of groups that do not conform to normal distribution, Mann-Whitney U test was used for cases with two groups and Kruskal-Wallis H test was used for cases with three or more groups. Pearson Chi-Square analysis was used in the analysis of the created cross-tables.  $p < 0.05$  value was accepted as the criterion for statistical significance.

## RESULTS

The survey was filled 170 times. 5 participants did not agree to participate in the study at the stage where the purpose of the study and informed consent were presented, and 165 people constituted the total sample of the study. The distribution of the sample by occupational groups is as follows:

Psychiatry specialist 79 (47.9%), psychiatry resident 31 (18.8%), emergency medicine specialist 34 (20.6%), emergency medicine resident 21 (12.7%). The age of the participants was between 25 and 60 years and the mean age was 34.63 ( $\pm 7.04$ ). Of the 165 respondents who completed the survey, the number of people who had special training on DMC was 4 (2.4%). The mean experience of the 4 people who had training was 9.33 years ( $\pm 9.45$ ). Data on the number of patients seen by psychiatrists and emergency physicians are presented in Table 1.

When the DMC decisions of psychiatrists, emergency medicine specialists and residents were examined, 42 (54%) psychiatry specialist, 24 (77%) psychiatry resident, 28 (82%) emergency medicine specialist and 16 (76%) emergency medicine resident stated that DMC was intact for scenario 1. For scenario 2, these rates were determined as 70 (%88), 28 (%90), 26 (%76), 15 (%71) while for sce-

**Table 1.** Data on the number of patients evaluated by psychiatrists and emergency physicians

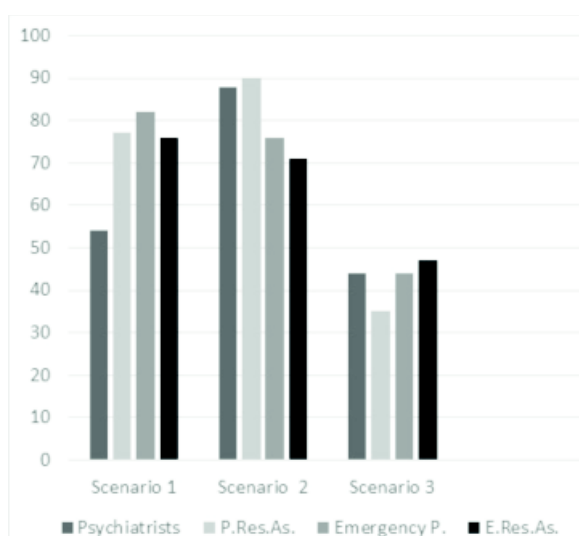
	Psychiatrist (n = 110)	Emergency medicine physician (n = 55)
Years of experience (mean, –SD)	9.05 (–6.73)	7.22 (–4.93)
Number of patients evaluated per week (mean, –SD)	124.79 (–97.80)	413.55 (–364.72)
Number of forensic cases evaluated per week (mean, –SD)	8.01 (–16.83)	43.11 (–57.50)
Number of consultations evaluated per week (mean, –SD)	8.97 (–11.08)	-

SD: standard deviation

nario 3 they were 34 (%44), 11 (%35), 15 (%44) and 10 (47%), respectively. Among the psychiatrists and residents, a statistically significant difference was found between the two groups only in scenario 1 (p=0.045, x2= 4.023). No significant differences were found in the other two scenarios (p>0.05, p>0.05).

When the degree of self-confidence was examined among psychiatrists and residents in scenario 1, it was found to be 3.06 (± 1.09) for psychiatrists and 2.19 (± 0.91) for psychiatry residents (p = 0.000, Z = -3.724.). No significant differences were found in terms of self-confidence rates for the other 2 scenarios (p>0.05, p>0.05).

Information about participants' assessment of DMC, confidence rates and statistical data are presented in Table 2. The mean self-confidence of participants in DMC decisions is presented in Table 3.



**Figure 1.** Percentages of participants stating that DMC is intact in the scenarios

**Table 2.** Assessment of participants' decision-making capacity and self-confidence rates

	Psychiatrist (n = 110)	Emergency medicine physician (n = 55)	χ <sup>2</sup> *	Z**	p
For Scenario 1, DMC intact (n, %)	67 (%60,9)	44 (%80)	5.234		<b>0.02</b>
For Scenario 2, DMC intact (n, %)	98 (%89,1)	41 (%74,5)	4.800		<b>0.028</b>
For Scenario 3, DMC intact (n, %)	46 (%42)	25 (%45)	0.053		0.818
Mean self-confidence for Scenario 1 (Mean, –SD)	2,82 (–1,11)	3,09 (–1,27)	-	1,453	0.146
Mean self-confidence for scenario 2 (Mean, –SD)	3,14 (–1,25)	3,69 (–1,28)	-	2,742	<b>0.006</b>
Mean self-confidence for scenario 3 (Mean, –SD)	2,94 (–1,16)	3,26 (–1,390)	-	1,809	0.070

\* Chi-square test. \*\* Mann Whitney-U test. SD: standard deviation

## DISCUSSION

In this study on the DMC about the grey zones, a statistically significant difference was found between the emergency medicine physicians and psychiatrists regarding the DMCs of the first case that has major depression who requests discharge while having gastrointestinal bleeding and the second case regarding an asthma attack, requesting discharge. Between psychiatry physicians, a significant difference was found between the specialists and residents' DMC decisions in the first case. Consistent with the literature, we observed that the interrater agreement of DMC decisions between different medical branches was low in a significant number of cases.

It has been asserted that one of the most important difficulties in DMC assessment is the inadequacy of formal education on this issue (9). In the literature, it was stated that psychiatrists who didn't have psychosomatic medicine training had a mean of 1.5 courses on DMC, while those who completed the training had a mean of 3.0 courses (4). As for psychiatric training in Turkey, there is no specific training in terms of "Requirements and Minimum Standards in Training for Psychiatric Specialty" set by the Psychiatric Association of Turkey and in the

**Table 3.** Participants' mean self-confidence about DMC decisions

	Psychiatrist (mean, –SD)	Emergency medicine physician (mean, –SD)	p
Mean self-confidence for scenario 1			
DMC intact	2,75 (–1,02)	3,25 (–1,37)	>0.05
DMC impaired	2,93 (–1,24)	3,00 (–1,26)	>0.05
Mean self-confidence for scenario 2			
DMC intact	3,18 (–1,23)	3,90 (–1,09)	<b>0.006</b>
DMC impaired	2,75 (–1,42)	3 (–1,03)	>0.05
Mean self-confidence for scenario 3 ( Mean, –SD)			
DMC intact	2,94 (–1,19)	3,17 (–1,36)	>0.05
DMC impaired	2,93 (–1,14)	3,38 (–1,43)	>0.05

qualification conditions of the Emergency Medicine Association of Turkey (10, 11). As in other countries, this causes difficulties in the practice of DMC assessment in Turkey. The difference between psychiatry specialists and residents in the assessment of DMC in the first case with depression may be related to this lack of education. Psychiatry residents, compared to specialists, considered that DMC was intact in the first case at a higher rate, but their self-confidence scores were significantly lower. This can be explained by less knowledge and experience of residents on the effects of depressive disorders on DMC. Affective disorders can be accompanied by cognitive losses, despite the presence of apparently preserved cognitive functions (12). Depressive disorders can significantly affect DMC, especially impairing the ability to 'appreciate' from 4 basic consent skills (13). A similar result was also found in the study by Armontrout et al., where the same scenarios were evaluated by different professions and the rate of psychiatrists who stated that DMC was intact in the first case was found to be significantly lower than lawyers (9). The reason why more emergency physicians think that DMC is intact in the first case than psychiatrists may be due to the fact that they encounter fewer depressive patients than psychiatrists in their professional practices and their lack of experience and knowledge about the relationship between depressive disorders and cognition could be the cause of this difference. This indicates the importance of knowledge and experience regarding the cognitive effects of mental illness as well as forensic knowledge in DMC assessments.

In the second scenario, there is a statistically significant difference between both emergency medicine physicians and psychiatrists in terms of self-confidence scores and DMC decisions. In this case, with a high rate of self-confidence, emergency physicians more often thought that DMC is impaired. DMC is traditionally evaluated with four basic consent abilities: ability 'to understand', to reason', to appreciate' and to choose' (2,14,15). Differences in DMC decisions between different professional areas may be the result of evaluating these four basic competencies with different degrees of weight and importance. The reason why emergency physicians often think that DMC is impaired in the second case may be because they

have more experience on medical complications and life-threatening situations are more alerting for them. Psychiatrists, on the other hand, may have interpreted the case as DMC-intact, because the patient has the ability to plan ahead for his/her own medical care and there is no history of a psychiatric disorder. In our study, it has not been assessed which basic consent abilities are emphasized by different branches in DMC assessment and this area could be enlightened with further studies on this matter.

Compared to the literature data, we found that the percentage of psychiatry residents who considered DMC as intact was significantly higher and for the first two cases it was higher than psychiatry specialists (9). Differences in health law between countries and doctors' malpractice concerns may be playing a role in this difference. This conservative attitude, which gives importance to the autonomy of the patients rather than their prognosis, seems compatible with the fact that a high rate of health lawyers believe that DMC is intact compared to other professions in the Armontrout et al.'s study (9). Therefore, in addition to patient well-being, legal regulations may play a role in physicians' DMC decisions. Significant steps can be taken to reduce uncertainty with clear legal arrangements to be made on medical decisions of cases in the grey area, and with the inclusion of these regulations in medical education.

Competence and DMC are two related concepts that sometimes referred reciprocally. Appelbaum and Gutheil define competence as "a threshold requirement for persons to retain the power to make decisions for themselves" (1). It is helpful to consider this notion as two related sub-concepts, e.g. general competence and specific competence. General competence is defined as the ability to be able to handle person's vocations in a proper way, whereas specific competence is defined as the ability to execute a particular act (1). Thus, its evaluation comprises of these abilities: communication of a choice, factual understanding of the issues, appreciation of the situation and its consequences and rational manipulation of information (1). The concept of decision-making capacity used in our study can be considered as specific competence. Many studies about specific competence state that

the 'MacArthur competence assessment tool' (MacCAT) is useful and has high sensitivity and specificity (16-18). It is a helpful tool to determine the patient's DMC in a clinical setting, which takes about 15-20 minutes to apply. Various newly developed forms of MacCAT measures person's ability to "understand, reasoning, appreciation and expression of a choice" (18). In addition, it was stated that the "Mental Competence Evaluation form" developed by Can et al in 2006 can be used for specific consent evaluations. In this form, decision making, rationality of the results, reasoning and knowing are evaluated, and the Cronbach Alpha value of the scale was determined as 0.98 (19). Considering the low consensus of physicians on the DMC decision both in our study and in the literature, using such a structured tool in DMC assessments may help to overcome the uncertainties in the grey area.

Our study has several limitations. The major limitation of the study is the sample size. With larger samples and including participants from different institutions, data regarding the impact of education on DMC decisions can be evaluated with greater precision. Online survey-based design of the study may not be representing the real world decisions of the physicians and the findings should be evaluated with this regard. Compared to previous studies in this issue, the stronger aspects of our study are that our study is the first on DMC evaluations of physicians in Turkey and that emergency physicians who may need to perform rapid DMC evaluations were also included in the study. Also, larger sample size compared to the previous study in the field is another strong aspect of this study. In future studies, by including physicians with different medical branches, more detailed data could be obtained. It may also be helpful to consider these results in more detail with larger samples, and to compare these results with distinct training backgrounds, e.g compare differences between different countries,

to further determine the validity and generalizability of results.

As stated in previous studies, training background seems to influence the physicians' decisions and their self-confidence levels, with better-trained physicians being more self-confident (9). Thus, we suggest that in both emergency department and psychiatry resident training, it is essential to include DMC and competency evaluation training with an emphasis on structured assessment tools and interviews, such as MacCAT.

## CONCLUSION

In conclusion, the assessment of DMC is an assessment made at the intersection of medical service providers principles of respecting patients' autonomy and providing benefit. The fact that both principles are indispensable makes this assessment special. Although the assessment criteria established to date shed some light on the clinician, the assessment of cases in the grey area is a more challenging process. Identifying the cause of the differences in this area will provide benefits on the advancement of medical services.

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Case vignettes are accessible through Armontrout et al.'s study: <https://www.sciencedirect.com/science/article/abs/pii/S003331821630024X>

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Correspondence address: M.D. Harun Olcay Sonkurt, Akşahin Sokak, Uydu Demirkent Sitesi, C Blok, Daire: 8 Eskişehir - Türkiye, [hosonkurt@gmail.com](mailto:hosonkurt@gmail.com)

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