CHAPTER 6

MANAGEMENT OF PSYCHIATRIC COMORBIDITIES IN SURGICAL PATIENTS

Ömer Furkan YILMAZ¹

INTRODUCTION

The incidence of comorbid psychiatric conditions among surgical populations is substantial, with various studies reporting a prevalence ranging from 30-50%. The presence of comorbid psychiatric conditions in surgical patients has been shown to have a significant impact on surgical outcomes, including a greater likelihood of complications, prolonged hospitalization, and impaired postoperative recovery. In addition to the negative impact on patients' physical health, the presence of psychiatric comorbidities also leads to increased healthcare costs and decreased patient satisfaction (1).

In addition, identifying and managing psychiatric comorbidities in surgical patients can pose a challenge due to the complexity and variability of the perioperative period. The perioperative period encompasses the time frame from preoperative assessment and preparation to postoperative recovery and rehabilitation, and it is a crucial period for patients as it can greatly impact their overall recovery and outcomes. The perioperative period is also a time of increased stress, which can exacerbate existing psychiatric symptoms or trigger new ones (2).

Given the high prevalence of psychiatric comorbidities and their negative impact on surgical outcomes, it is imperative for healthcare providers to be knowledgeable about the identification, assessment and management of psychiatric comorbidities in surgical patients. Effective management of psychiatric comorbidities in surgical patients begins with identifying at-risk individuals through preoperative screening, followed by appropriate management strategies such as preoperative interventions, psychological support during the perioperative period, and postoperative follow-up care. A multidisciplinary approach involving surgeons, psychiatrists, psychologists, and other members of the healthcare team is crucial for effective management of psychiatric comorbidities in surgical

¹ Exp. Dr. Omer Furkan Yılmaz , Malatya Yeşilyurt State Hospital , Psychiatry Clinic , ylmz.omerfurkan@gmail.com

patients (3).

In this chapter , we will review the prevalence and impact of psychiatric comorbidities in surgical patients, discuss strategies for identifying at-risk individuals, and explore management options for optimizing patient outcomes in the perioperative period.

PREVALENCE AND IMPACT OF PSYCHIATRIC COMORBIDITIES IN SURGICAL PATIENTS

The incidence of psychiatric comorbidities among surgical patients varies depending on the type of surgery and the population studied. Studies have reported a prevalence of psychiatric comorbidities ranging from 20-50% in surgical patients (4). Psychiatric comorbidities are prevalent among surgical patients, with depression, anxiety, and post-traumatic stress disorder (PTSD) being the most commonly reported conditions (5).

Depression is a common comorbidity in surgical patients, with investigation reporting prevalence rates ranging from 5-35% (6). The presence of depression in surgical patients has been related with elevated risk of complications, prolonged hospitalization, and impaired postoperative recovery. Patients with depression are also at amplified risk of developing delirium during the perioperative period, which can further complicate their recovery (7).

Anxiety is another common comorbidity in surgical patients, with research reporting prevalence rates ranging from 15-40% (6). The presence of anxiety in surgical patients has been related with heightened risk of complications, prolonged hospitalization, and impaired postoperative recovery. Anxiety can also lead to increased preoperative anxiety, which can negatively impact patients' ability to cope with the surgical experience (8).

PTSD is a less common comorbidity in surgical patients, with investigation reporting prevalence rates ranging from 1-10% (5). The presence of anxiety in surgical patients has been related with greater risk of complications, prolonged hospitalization, and impaired postoperative recovery. PTSD can also lead to increased preoperative anxiety, which can negatively impact patients' ability to cope with the surgical experience (9).

In addition to the negative impact on patients' physical health, the presence of psychiatric comorbidities also leads to increased healthcare costs and decreased patient satisfaction (10). Patients with psychiatric comorbidities are also at augmented risk of developing delirium during the perioperative period, which can further complicate their recovery (11, 12).

In summary, psychiatric comorbidities such as depression, anxiety, and PTSD are prevalent in surgical patients and their presence can have a significant impact on surgical outcomes, including increased risk of complications, prolonged hospitalization, and impaired postoperative recovery (13). It is significant to identify and manage these comorbidities to optimize patient outcomes.

IDENTIFYING AT-RISK INDIVIDUALS:

Effective management of psychiatric comorbidities in surgical patients begins with identifying at-risk individuals. This can be done through preoperative screening using validated assessment tools such as the Patient Health Questionnaire or the Generalized Anxiety Disorder 7-item scale. These self-report questionnaires are validated and widely used in clinical practice to identify individuals with depression and anxiety, respectively (14, 15).

Another way to identify individuals at risk is by conducting a thorough patient interview. During the interview, healthcare providers should inquire about a patient's past and current psychiatric history, including any history of depression, anxiety, or PTSD. They should also ask about the patient's current psychological state, including any symptoms of depression, anxiety, or PTSD, as well as any current psychosocial stressors (11, 16).

It is essential to recognize that certain patient populations may be predisposed to the development of psychiatric comorbidities, such as older adults, those with a history of substance abuse, and those with prior psychiatric disorders. Therefore, it is crucial to take these risk factors into account when identifying and assessing individuals who may be at augmented risk of developing psychiatric comorbidities (17).

Finally, it is important to note that the process of identifying individuals at-risk for psychiatric comorbidities should not be limited to the preoperative period but should be an ongoing process throughout the perioperative period and recovery (18).

In conclusion, identifying individuals at-risk for psychiatric comorbidities in surgical patients is a critical step in the management of these comorbidities. This can be done through preoperative screening using validated assessment tools, conducting a thorough patient interview, and considering risk factors such as patient populations and past psychiatric history (19).

PRE-OPERATIVE INTERVENTIONS

Once a patient has been spotted as at-risk for psychiatric comorbidities, appropriate pre-operative interventions can be implemented to optimize the patient's mental health prior to surgery. These interventions can include:

Medication adjustments: Patients with a pre-existing psychiatric disorder may require medication adjustments prior to surgery. For example, patients with depression may require an increase in their antidepressant dosage, while patients with anxiety may require a short-term increase in their anxiolytic medication (20, 21).

Counseling: Patients with psychiatric comorbidities may benefit from preoperative counseling sessions. These sessions can help patients cope with the tension of the upcoming surgery and address any concerns they may have about the procedure. Counseling can also provide patients with the necessary tools and strategies to manage their symptoms postoperatively (22).

Psychological support: Patients with psychiatric comorbidities may benefit from psychological support services such as CBT or relaxation techniques. These techniques can help patients manage their symptoms and cope with the tension of the upcoming surgery (22).

Referral to specialized services: In some cases, patients with psychiatric comorbidities may require referral to specialized services such as a mental health professional or a pain management clinic. These specialized services can provide patients with additional support and management options for their psychiatric comorbidities (1).

It is critical to keep in mind that preoperative interventions must be personalized to the specific needs of the individual patient, as part of a comprehensive management strategy. It is paramount to include the patient in the treatment settling process by incorporating their personal preferences and values into the plan (22).

In conclusion, pre-operative interventions can play a critical role in the management of psychiatric comorbidities in surgical patients. These interventions can include medication adjustments, counseling, psychological support, and referral to specialized services. It's important to have a multidisciplinary approach and to involve the patient in the determination process to optimize their outcome (11).

PERIOPERATIVE INTERVENTIONS

Perioperative interventions are designed to provide psychological support during the perioperative period, which can include the preoperative, operative, and postoperative recovery phases. These interventions can include:

Psychological support: Patients with psychiatric comorbidities may benefit from psychological support services such as CBT or relaxation techniques. These techniques can help patients manage their symptoms, reduce anxiety and stress, and improve their overall well-being during the perioperative period (18).

Patient education: Patient education can be an important perioperative intervention, providing patients with knowledge about the surgery and postoperative recovery process. This can help patients understand what to expect and reduce anxiety (22).

Family support: Family support is an important perioperative intervention that can provide both emotional and practical assistance to patients and their families (22).

Analgesic and sedative management: Patients with psychiatric comorbidities may have distinct requirements specific management of analgesic and sedative medications. This can include medications to reduce pain and anxiety and to promote sleep (20, 21).

Postoperative care: Surgical patients with psychiatric comorbidities may necessitate postoperative care that includes follow-up appointments with mental health professionals to monitor their mental health status and to make adjustments to their treatment plan as needed (10).

It's important to note that perioperative interventions should be tailored to the individual patient's needs, and be integrated into a comprehensive management plan. The use of different techniques and strategies should be evaluated by the healthcare team on a case by case basis and adjusted as needed (2).

In conclusion, perioperative interventions can play a essential role in the management of psychiatric comorbidities in surgical patients. These interventions can include psychological support, patient education, family support, specific management of analgesic and sedative medications, and postoperative care. A multidisciplinary approach, including the patient and their family, is key to optimize the patient's outcome during the perioperative period (23).

POST-OPERATIVE INTERVENTIONS

Post-operative interventions are designed to provide follow-up care and support for patients after their surgery. These interventions can include:

Follow-up appointments: Patients with psychiatric comorbidities may necessitate follow-up appointments with mental health professionals for ongoing monitoring of their mental health status and to make adjustments to their treatment plan as needed (11).

Medication management: Patients with psychiatric comorbidities may necessitate medication management to control their symptoms, to prevent recurrence of symptoms, or to prevent new onset of symptoms (24).

Psychological support: Patients with psychiatric comorbidities may continue to benefit from psychological support services such as therapy CBT or relaxation techniques to help them manage their symptoms and cope with the postoperative recovery process (18).

Referral to specialized services: In some cases, patients with psychiatric comorbidities may require referral to specialized services such as a pain management clinic or a rehabilitation center to optimize their recovery (1).

Patient and family education: Patient and family education can be an important postoperative intervention, providing patients and their families with information about the postoperative recovery process, expected outcomes, and warning signs of complications (22).

It's necessary to note that post-operative interventions should be tailored to the individual patient's needs, and be integrated into a comprehensive management plan. The use of different techniques and strategies should be evaluated by the healthcare team on a case by case basis and adjusted as needed (10).

In conclusion, post-operative interventions can play a necessary role in the management of psychiatric comorbidities in surgical patients. These interventions can include follow-up appointments, medication management, psychological support, referral to specialized services, and patient and family education (16).

MULTIDISCIPLINARY APPROACH

A multidisciplinary approach is essential for effective management of psychiatric comorbidities in surgical patients. This approach involves a team of healthcare professionals from different specialties working together to deliver holistic care that addresses the patient's physical, psychological, and social needs (11).

The team typically includes surgeons, psychiatrists, psychologists, nurses, and other members of the healthcare team. They work together to develop a treatment strategy that addresses for the patient for the patient, based on their individual needs, preferences, and values (11).

The multidisciplinary team approach enables the different healthcare professionals to share their expertise and perspectives, leading to a more comprehensive and holistic management of the patient's condition. The team members communicate and collaborate regularly to ensure continuity of care throughout the perioperative period (11).

The multidisciplinary team approach also involves involving the patient and their family in the resolving process. This approach can increase patient engagement and empowerment, which leads to better treatment adherence and better outcomes (22).

In summary, the management of psychiatric comorbidities in surgical patients is a multifaceted endeavor that necessitates a multidisciplinary approach, including participation from surgeons, psychiatrists, psychologists, and other healthcare providers. A multidisciplinary approach is crucial for effective management of psychiatric comorbidities in surgical patients, as it enables the different healthcare professionals to share their expertise and perspectives, and to provide thorough care for the patient. A key aspect of a multidisciplinary approach is involving the patient and their family in the determination process, which allows for the integration of their preferences and values into the treatment plan (22).

CONCLUSION

Effective management of psychiatric comorbidities in surgical patients necessitates a holistic approach that addresses the patient's physical and mental health needs concurrently. The solutions for managing psychiatric comorbidities in surgical patients may vary depending on the specific needs of the patient, but some key strategies include:

Identification and preoperative screening: Identifying patients at-risk for psychiatric comorbidities is the first step in managing these comorbidities. Preoperative screening using validated assessment tools, conducting a thorough patient interview, and considering risk factors such as patient populations and past psychiatric history are important methods to identify patients at-risk (13).

Preoperative interventions: Preoperative interventions can play a essential role in the management of psychiatric comorbidities in surgical patients. These

interventions can include medication adjustments, counseling, psychological support, and referral to specialized services (20, 22).

Perioperative interventions: Perioperative interventions are designed to provide psychological support during the perioperative period, which can include the preoperative, operative, and postoperative recovery phases. These interventions can include psychological support, patient education, family support, specific management of analgesic and sedative medications, and postoperative care (20, 22).

Postoperative interventions: Postoperative interventions are designed to provide follow-up care and support for patients after their surgery. These interventions can include follow-up appointments, medication management, psychological support, referral to specialized services, and patient and family education (16).

Multidisciplinary approach: A multidisciplinary approach is essential for effective management of psychiatric comorbidities in surgical patients. This approach involves a team of healthcare professionals from different specialties working together to provide exhaustive care for the patient (11).

In conclusion, managing psychiatric comorbidities in surgical patients effectively necessitates a holistic approach that addresses the patient's physical and mental health needs concurrently. Identifying patients at-risk and providing preoperative, perioperative, and postoperative interventions, as well as a multidisciplinary approach, are key strategies for managing psychiatric comorbidities in surgical patients. It's important to involve the patient and their family in the settling process, and to tailor the treatment plan to the patient's specific needs (25).

REFERENCES

- 1. Bailey EA, Wirtalla C, Sharoky CE, Kelz RR. Disparities in operative outcomes in patients with comorbid mental illness. *Surgery*. 2018;163(4):667-671. doi:10.1016/j.surg.2017.09.029.
- Gustafsson UO, Scott MJ, Hubner M, et al. Guidelines for Perioperative Care in Elective Colorectal Surgery: Enhanced Recovery After Surgery (ERAS*) Society Recommendations: 2018. World Journal of Surgery. 2019;43(3):659-695. doi:10.1007/s00268-018-4844-y.
- 3. Jansen L, van Schijndel M, van Waarde J, van Busschbach J. Health-economic outcomes in hospital patients with medical-psychiatric comorbidity: A systematic review and meta-analysis. *PLoS One*. 2018;13(3):e0194029. Published 2018 Mar 13. doi:10.1371/journal.pone.0194029.
- 4. Chen H, Devine M, Khan W, et al. Impact of psychiatric comorbidities on emergency surgical patients' outcomes. *BJPsych Open*. 2021;7(Suppl 1):S242-S243. Published 2021 Jun 18. doi:10.1192/bjo.2021.647.
- 5. Hoge C. W., Terhakopian A., Castro C. A., et al. (2007). Association of posttraumatic stress disorder with somatic symptoms, health care visits, and absenteeism among Iraq War veterans. *American Journal of Psychiatry*, 164(6), 2173-2175.
- 6. Bedaso A, Mekonnen N, Duko B. Prevalence and factors associated with preoperative anxiety

among patients undergoing surgery in low-income and middle-income countries: a systematic review and meta-analysis. *BMJ Open.* 2022;12(3):e058187. Published 2022 Mar 11. doi:10.1136/ bmjopen-2021-058187.

- Mirani SH, Areja D, Gilani SS, et al. Frequency of Depression and Anxiety Symptoms in Surgical Hospitalized Patients. *Cureus*. 2019;11(2):e4141. Published 2019 Feb 26. doi:10.7759/ cureus.4141.
- 8. Sait S, Trabulsi N, Zagzoog M, et al. Prevalence of depression and anxiety disorders among bariatric surgery patients. *Journal of Surgery and Medicine* . 2019;Aug. 1,3(8):574-8.
- 9. Sareen J. Posttraumatic stress disorder in adults: impact, comorbidity, risk factors, and treatment. *Canadian Journal of Psychiatry*. 2014;59(9):460-467. doi:10.1177/070674371405900902.
- Ghoneim MM, O'Hara MW. Depression and postoperative complications: an overview. BMC Surgery. 2016;16:5. Published 2016 Feb 2. doi:10.1186/s12893-016-0120-y.
- 11. Metta JR, Chelamkuri M. Identification of patients with psychiatric disorders ina surgical unit: a prospective study of risk factors. *International Journal of Surgery*.2019;6:4360-3.
- 12. Lipowski, Z.J. (1990). Delirium (acute confusional states). JAMA, 258 13, 1789-92 .
- 13. Wang S, Cardieri B, Mo Lin H, et al. Depression and anxiety symptoms are related to pain and frailty but not cognition or delirium in older surgical patients. *Brain and Behavior*. 2021; 11:e02164. https://doi.org/10.1002/brb3.2164.
- 14. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*. 2001;16(9):606-613. doi:10.1046/j.1525-1497.2001.016009606.x.
- 15. Spitzer R. L., Kroenke K., Williams J. B., et al. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine*, 166(10), 1092-1097.
- Lancaster CL, Teeters JB, Gros DF, et al. Posttraumatic Stress Disorder: Overview of Evidence-Based Assessment and Treatment. *Journal of Clinical Medicine*. 2016;5(11):105. Published 2016 Nov 22. doi:10.3390/jcm5110105.
- 17. Pinto A, Faiz O, Davis R, et al. Surgical complications and their impact on patients' psychosocial well-being: a systematic review and meta-analysis *BMJ Open* 2016;6:e007224. doi: 10.1136/ bmjopen-2014-007224.
- Oprea AD, Keshock MC, O'Glasser AY, et al. Preoperative Management of Medications for Psychiatric Diseases: Society for Perioperative Assessment and Quality Improvement Consensus Statement. *Mayo Clinic Proceedings*. 2022;97(2):397-416. doi:10.1016/j.mayocp.2021.11.011.
- Thorell A, MacCormick AD, Awad S, et al. Guidelines for Perioperative Care in Bariatric Surgery: Enhanced Recovery After Surgery (ERAS) Society Recommendations. World Journal of Surgery. 2016;40(9):2065-2083. doi:10.1007/s00268-016-3492-3.
- 20. Gan TJ, Belani KG, Bergese S, et al. Fourth Consensus Guidelines for the Management of Postoperative Nausea and Vomiting [published correction appears in Anesth Analg. 2020 Nov;131(5):e241]. *Anesthesia and analgesia*. 2020;131(2):411-448. doi:10.1213/ ANE.000000000004833.
- 21. Sessler C. N., Gosnell M. S., Grap M. J., et al. (2002). The Richmond Agitation-Sedation Scale: validity and reliability in adult intensive care unit patients. *American Journal of Respiratory and Critical Care Medicine*, 166(10), 1338-1344.
- Lin JL, Lipstein EA, Wittenberg E, et al. Intergenerational Decision Making: The Role of Family Relationships in Medical Decision Making. *MDM Policy Practice*. 2021;6(2):23814683211039468. Published 2021 Oct 29. doi:10.1177/23814683211039468.
- 23. La A, Nadarajah V, Jauregui JJ, et al. Clinical characteristics associated with depression or anxiety among patients presenting for knee surgery. *Journal of Clinical Orthopaedics and Trauma*. 2020;11(Suppl 1):S164-S170. doi:10.1016/j.jcot.2019.08.009.
- 24. Tadesse M, Ahmed S, Regassa T, et al. Effect of preoperative anxiety on postoperative pain on patients undergoing elective surgery: Prospective cohort study. *Annals of Medicine and Surgery* (Lond). 2021;73:103190. Published 2021 Dec 22. doi:10.1016/j.amsu.2021.103190.
- 25. Krist AH, Tong ST, Aycock RA, et al. Engaging Patients in Decision-Making and Behavior Change to Promote Prevention. *Studies in Health Technology and Informatics*. 2017;240:284-302.