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Enhancing Patient Safety Through Staff Education on Selective Serotonin Reuptake Inhibitors (SSRI) Medication Administration

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Walden University

College of Nursing

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Ijeoma Mbionwu

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the review committee have been made.

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Walden University

2025

Executive Summary: Staff Education Project
Enhancing Patient Safety Through Staff Education on Selective Serotonin Reuptake
Inhibitors (SSRI) Medication Administration

by

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BSN, Grand Canyon University, 2020

Executive Summary Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

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Summary

This project was a staff education initiative designed to address critical knowledge gaps among nursing staff regarding the safe administration of selective serotonin reuptake inhibitors (SSRIs). The identified practice problem was insufficient knowledge in areas such as SSRI pharmacology, proper dosages, administration techniques, and management of interactions and side effects. Given the importance of safe SSRI administration in preventing medication errors and optimizing patient outcomes, this gap was significant in nursing practice. The primary project question focused on a structured educational intervention improving nursing staff knowledge of SSRIs by a minimum of 20% change. The educational PowerPoint for the project was developed for nurses based on evidence to address identified weaknesses with SSRI administration. A pretest and posttest design were used to measure percent change for knowledge improvement. Five nurses participated in the education. Data analysis showed a percent change increase of 38% surpassing the targeted 20% and validating the program's effectiveness. To sustain these gains, it is recommended that the organization develop ongoing education, implement regular refresher courses, and establish a peer mentorship program to support continuous learning and safety. This project has important implications for nursing practice, fostering informed clinical decision-making, confidence, and improved care quality. It also supports positive social change by promoting an inclusive healthcare environment where patients receive culturally sensitive, safe care. Increased comprehension in medication management helps reduce health disparities, ensuring that diverse populations benefit equally from high-quality treatment.

Background

The foundation of this educational project on SSRIs highlights a significant gap in the nursing staff's knowledge regarding the safe administration of these medications.

SSRIs are commonly prescribed for various mental health disorders, including depression and anxiety. Due to potential side effects, drug interactions, and withdrawal risks, these medications require careful handling (Chu & Wadhwa, 2023; Gabriel & Sharma, 2017).

A lack of knowledge in these critical areas can lead to improper administration, increasing the risk of adverse events and negatively impacting patient outcome.

A comprehensive literature review indicated that structured educational interventions could effectively enhance nursing knowledge, reduce medication errors, and improve the quality of patient care. This underscored the urgency of addressing the identified knowledge gap. The primary project question focused on how a structured educational intervention could improve nursing staff's understanding of SSRIs by a minimum 20% change. The purpose of this doctoral project was to deepen nurses' comprehension of SSRIs, emphasizing key areas such as pharmacology, dosage, administration techniques, and the management of interactions and side effects. By addressing these components, the project aimed to enhance nursing competence and promote safer, more effective SSRI administration in clinical practice.

Robust evidence supported this initiative, with numerous studies highlighting the need for education on SSRI management within nursing. For example, Portela Dos Santos et al. (2022) found that targeted educational interventions significantly improved nurses' competencies in evidence-based practice, ultimately leading to safer patient care. Similarly, Nichols et al. (2023) emphasized the complexities associated with SSRI

pharmacology, underscoring the importance of staff education to ensure proper handling. Moreover, Edinoff et al. (2021) identified common SSRI side effects and adverse interactions, reinforcing the necessity for well-informed nursing personnel to prevent complications.

The substantial evidence consistently demonstrated the benefits of educational interventions targeting complex medication management. Research by Portela Dos Santos et al. (2022) and Nichols et al. (2023) identified that when nurses undergo structured training, their knowledge could improve significantly, directly influencing patient safety and care quality. Additionally, a study by Escrivá Gracia et al. (2019) revealed considerable gaps in drug knowledge among critical care nurses, illustrating that targeted educational interventions can reduce errors and enhance competencies in medication management, including complex medications like SSRIs. This study further emphasized the necessity of ongoing education for skill retention and error reduction.

Keers et al. (2013) conducted a systematic review that found training programs addressing the causes of medication errors, including education on drug interactions and side effects, significantly reduced administration errors. This finding supports the implementation of focused educational initiatives for SSRIs. Furthermore, Tu et al. (2023) demonstrated that staff education significantly improved nurses' efficiency and reduced errors in critical care settings. These studies provided compelling evidence that structured educational initiatives could effectively bridge knowledge gaps, reduce medication errors, and enhance patient outcomes.

Staff Education Project Development

The project began by identifying gaps specific to the organization in understanding SSRI pharmacology, dosages, administration techniques, and management of side effects and interactions with five nurses working in the clinics. It was identified that nurses working in the organizational clinic who administered SSRI medication were to be participants based on need which represented the identified gap in practice. The strengths, weaknesses, opportunities, and threats (SWOT) and evidence-based literature review were developed based on organizational needs. The literature review evaluates evidence in nursing practice by categorizing studies based on the strength and quality of evidence, ranging from Level 1 (highest) to Level 5 (lowest). The Level 1 evidence encompassed five randomized controlled trials (RCTs) and systematic reviews (RCTs) often considered the gold standard. The quality of evidence was graded from high to low, with significant flaws in studies reviewed impacting reliability and eliminating them from consideration.

In existing literature, studies, such as those by Escrivá Gracia et al. (2019), and Mohammed et al. (2022) highlighted the critical knowledge gaps in nursing practice, particularly medication safety. These studies often fall within Level 4 evidence, offering descriptive insights but lacking testable hypotheses or large sample sizes. Similarly, systematic reviews, like Keers et al. (2013), emphasized medication administration errors, providing high-quality descriptive data but limited intervention testing. Despite these limitations, such articles underscore the importance of targeted educational programs to improve nursing competencies.

Although higher levels of evidence, such as experimental interventions (Level 1), were sparse, reviews like Tu et al. (2023) and Nales (2020) demonstrated the benefits of integrating technological solutions for error reduction in nursing practice. Moreover, qualitative studies, such as Björkstén et al. (2016), provided foundational insights into the systemic issues causing medication errors, which are critical for developing future interventions. These studies collectively emphasized the need for robust evidence and resilience-enhancing programs to strengthen nursing practice and patient safety.

The SWOT analysis of the SSRI educational project revealed critical factors that shaped its success and challenges. Strengths included in the organization's commitment to professional development, access to baseline data for tailoring content, and interdisciplinary collaboration, ensuring program relevance and quality. Weaknesses such as limited training time, a small sample size, and initial knowledge gaps highlighted areas required strategic intervention. Opportunities, such as program scalability, leveraging participant feedback, and incorporating advanced technologies like e-learning offered pathways for growth and broader applicability. However, threats including high staff turnover, resource constraints, and resistance to change, posed risks to long-term sustainability. The educational PowerPoint for the project was developed for nurses based on evidence to address identified weaknesses with SSRI administration (see Appendix A). Data collection included a pretest-posttest design to measure knowledge improvement. The pretest assessed participants' baseline knowledge of SSRI safety (see Appendix B). The posttest measured knowledge gained after the educational intervention (see Appendix C). Both tests consisted of multiple-choice questions aligned with the learning objectives. Microsoft Excel was used to analyze the results by calculating the

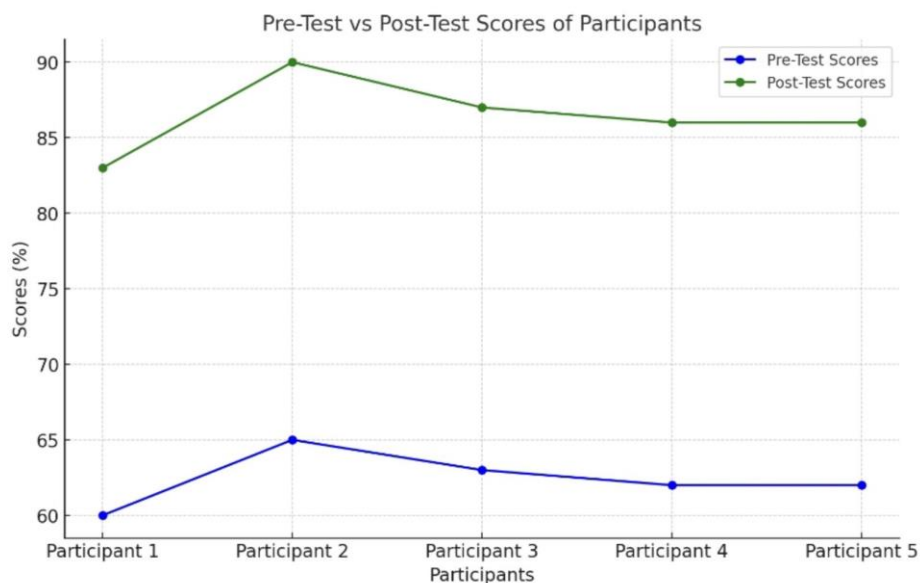
difference between pretest and posttest scores and determining the percentage increase. The quantitative analysis involved evaluating multiple-choice pretest and posttest scores to assess improvements in knowledge. The two educational sessions began with a 15-minute pretest comprising multiple-choice questions designed to assess baseline knowledge on SSRI pharmacology, dosages, administration techniques, side effects, and management strategies. Each participant used a unique identifier to maintain anonymity which allowed for linking pretest and posttest scores for comparison. This was followed by a 30-minute PowerPoint presentation covering key SSRI topics, including their pharmacological mechanisms, therapeutic uses, safe administration techniques, and side effect monitoring. The session concluded with a 15-minute posttest that was identical to the pretest, measuring knowledge acquisition and the intervention's effectiveness. This comprehensive approach effectively addressed knowledge gaps while fostering safer medication practices and improved patient outcomes.

Results

After implementing the SSRI educational intervention, Microsoft Excel was used for data analysis, calculating the difference in scores and the percent change in knowledge. Posttest results demonstrated an improvement in nursing staff knowledge, with a percent change increase of 38% in scores compared to pretest results. The pretest score mean score was 62 (min = 60, max = 63), indicating an initial knowledge gap (see Figure 1). After the intervention, posttest scores improved significantly with a mean score of 87.5 (min = 83, max = 86).

Figure 1

Educational Intervention on SSRI Knowledge: Pretest and Posttest Scores



The percent change increase surpassed the targeted 20% projected goal. The project had a positive impact on the organization by enhancing nursing staff comprehension in SSRI administration, which can lead to safer medication practices and improve patient care. This increase in knowledge is expected to reduce medication errors, support better patient monitoring, and foster adherence to evidence-based protocols, aligning with the organization's commitment to patient safety and quality care. Additionally, the project contributed to a culture of continuous learning within the organization, encouraging staff to prioritize knowledge updates in complex medication management areas. The sample size consisted of five female nurses working in the psychiatric unit, which limited applicability of the results to larger or more diverse nursing populations. Furthermore, scheduling constraints meant some staff could not attend, potentially affecting the results. The absence of a postsession follow-up also

restricted the ability to assess long-term knowledge retention, which could have provided a more comprehensive evaluation of the program's impact.

This project could potentially be important beyond the local setting because it addresses a universal need for enhanced SSRI knowledge among nursing professionals, given the widespread use of SSRIs in mental health care. Medication safety remains a critical issue in healthcare, and the structured, evidence-based educational model used in this project could be adapted for other settings, supporting broader efforts to improve medication management and patient safety across the healthcare system. The findings may contribute to a body of evidence on the effectiveness of educational interventions in reducing medication errors and enhancing patient outcomes. This organizational improvement confirmed the effectiveness of the educational program in addressing critical knowledge gaps related to SSRI pharmacology, dosage, administration techniques, and side effect management in this population of participants.

Conclusions

The SSRI educational project had a significant impact on the organization by enhancing nursing staff's knowledge and confidence in safe SSRI administration. It may directly contribute to patient safety and facilitate a reduction in medication errors. With an identified percent change increase of 38% among participants, the project not only met, but exceeded its objective, aligning well with the organization's commitment to high-quality, patient-centered care and effective risk management. This increase in education can empower nurses to deliver safer and more effective care, fostering a culture of continuous professional development and evidence-based practice within the organization.

To sustain and build upon these gains, further recommendations include implementing ongoing educational modules covering additional medication classes and complex treatment regimens, along with regular refresher courses and assessments to reinforce knowledge retention. Establishing a peer mentorship program, where experienced nurses guide newer staff, could also encourage continuous learning. Feedback mechanisms, such as surveys, are recommended to gather insights that could guide future program refinements.

This project fostered positive social change by promoting equitable and inclusive healthcare delivery through the enhanced comprehension of nursing staff in managing SSRIs. By improving nurses' knowledge and skills, the project addressed equity by ensuring safer medication administration practices, reducing the risk of errors that could disproportionately affect vulnerable populations. Enhanced comprehension also empowered nurses to address the diverse needs of patients, including those with limited access to healthcare, language barriers, or unique cultural considerations. This approach may contribute to improved patient outcomes for diverse populations, reducing health disparities, and ensuring that all individuals receive high-quality, safe, and effective mental health care.

In conclusion, the DNP project demonstrated that structured, evidence-based educational interventions can effectively address knowledge gaps in SSRI administration among nursing staff. The project may serve as a model for other institutions, illustrating how targeted education can enhance nursing comprehension, reduce medication-related risks, and support patient-centered, inclusive care. By embedding such education into

organizational practice, healthcare providers can build a safer, more equitable environment that aligns with goals of diversity, equity and positive social change.

References

- Chu, A., & Wadhwa, R. (2023). Selective serotonin reuptake inhibitors. *StatPearls Publishing*. <https://www.ncbi.nlm.nih.gov/books/NBK554406/>.
- Björkstén, K. S., Bergqvist, M., Andersén-Karlsson, E., Benson, L., & Ulfvarson, J. (2016). Medication errors as malpractice—a qualitative content analysis of 585 medication errors by nurses in Sweden. *BMC Health Services Research*, 16(1), 431. <https://doi.org/10.1186/s12913-016-1695-9>.
- Escrivá Gracia, J., Brage Serrano, R., & Fernández Garrido, J. (2019). Medication errors and drug knowledge gaps among critical-care nurses: A mixed multi-method study. *BMC Health Services Research*, 19(1), 640. <https://doi.org/10.1186/s12913-019-4481-7>.
- Edinoff, A. N., Akuly, H. A., Hanna, T. A., Ochoa, C. O., Patti, S. J., Ghaffar, Y. A., Kaye, A. D., Viswanath, O., Urits, I., Boyer, A. G., Cornett, E. M., & Kaye, A. M. (2021). Selective serotonin reuptake inhibitors and adverse effects: A narrative review. *Neurology International*, 13(3), 387-401. <https://doi.org/10.3390/neurolint13030038>
- Gabriel, M., & Sharma, V. (2017). Antidepressant discontinuation syndrome. *CMAJ*, 189(21), E747. <https://doi.org/10.1503/cmaj.160991>
- Keers, R. N., Williams, S. D., Cooke, J., & Ashcroft, D. M. (2013). Causes of medication administration errors in hospitals: A systematic review of quantitative and qualitative evidence. *Drug Safety*, 36(11), 1045-1067. <https://doi.org/10.1007/s40264-013-0090-2>

Mohammed, T., Mahmud, S., Gintamo, B., Mekuria, Z. N., & Gizaw, Z. (2022).

Medication administration errors and associated factors among nurses in Addis Ababa federal hospitals, Ethiopia: a hospital-based cross-sectional study. *BMJ Open*, 12(12), e066531. <https://doi.org/10.1136/bmjopen-2022-066531>

Nales, D. A. (2020). Opportunities for changes in the drug product design to enhance medication safety in older people: Evaluation of a national public portal for medication incidents. *British Journal of Clinical Pharmacology*, 86(10), 1946-1957.

Nichols, A. L., Blumenfeld, Z., Luebbert, L., Knox, H. J., Muthusamy, A. K., Marvin, J. S., Kim, C. H., Grant, S. N., Walton, D. P., Cohen, B. N., Hammar, R., Looger, L., Artursson, P., Dougherty, D. A., & Lester, H. A. (2023). Selective serotonin reuptake inhibitors within cells: Temporal resolution in cytoplasm, endoplasmic reticulum, and membrane. *Journal of Neuroscience*, 43(13), 2222–2241. <https://doi.org/10.1523/JNEUROSCI.1519-22.2022>.

Portela Dos Santos, O., Melly, P., Hilfiker, R., Giacomino, K., Perruchoud, E., Verloo, H., & Pereira, F. (2022). Effectiveness of educational interventions to increase skills in evidence-based practice among nurses: The EDITcare systematic review. *Healthcare*, 10 (11), 2204. <https://doi.org/10.3390/healthcare10112204>

Appendix A: PowerPoint Presentation on SSRIs Medications

Introduction

- Patient safety is a fundamental aspect of healthcare that ensures the well-being of patients during their care journey.
- Staff education plays a critical role in minimizing medication errors and enhancing patient safety.
- This presentation will provide knowledge and skills needed for the safe administration of SSRIs.

What are Selective Serotonin Reuptake Inhibitors (SSRIs)?

- SSRIs are class of drugs primarily used in clinical practice to treat depression and anxiety disorders.
- They work by selectively inhibiting the reuptake of serotonin (5-HT) into the presynaptic neuron.
- This inhibition increases the level of serotonin available in the synaptic cleft.
- Serotonin improve communication between neurons, which can enhance mood and reduce symptoms of depression and anxiety.

SSRIs Video (2:06 minutes)

SSRIs

SELECTIVE SEROTONIN REUPTAKE INHIBITORS

- ⊗ More energy
- ⊗ Better mood

• PRESYNAPTIC NEURON
 • REUPTAKE
 • POSTSYNAPTIC NEURON

<https://www.youtube.com/watch?v=SwsWkTWJMTw>

Pharmacokinetics

- SSRIs, including fluoxetine, sertraline, paroxetine, and citalopram, are metabolized in the liver via cytochrome P450 (CYP450) enzymes.
 - Fluoxetine has a long half-life of approximately 50 hours and an active metabolite lasting 3-10 days.
 - Sertraline, paroxetine, and citalopram have moderate half-lives of around 24 hours.

Pharmacokinetics

In terms of enzyme inhibition, sertraline and citalopram are weak inhibitors of CYP450, while fluoxetine and paroxetine are strong inhibitors, significantly affecting the metabolism of tricyclic antidepressants (TCAs) and beta-blockers, leading to increased drug levels and potential side effects in these medications.



Indications for SSRIs

Primary Uses:

- Depression.
- Anxiety Disorder.
- Obsessive-Compulsive Disorder
- Eating disorders.
- Post traumatic stress disorder (PTSD)
- Premenstrual Dysphoric disorder (PMDD)
- Attention Deficit Hyperkinetic Disorder (ADH)

Benefits of SSRIS



- First-line treatment for depression and anxiety due to effectiveness and safety.
- Reduce the risk of cardiovascular and anticholinergic effects compared to Tricyclic antidepressants (TCAs) and Monoamine Oxidase Inhibitors (MAOIs).
- Lower the risk of overdose compared to TCAs and MAOIs.
- Fewer side effects.
- Wide therapeutic use.

Potential Adverse Effects

- Gastrointestinal symptoms: (Nausea and vomiting, diarrhea).
- Changes in appetite (5-HT₃)---weight loss
- Sleep disturbances: Drowsiness with Fluvoxamine.
- Anxiety & Tremors.
- Sexual dysfunction: Loss of libido (common in men).
- Sleep disturbances: Insomnia, drowsiness.
- Neurological symptoms: Headaches, dizziness.
- Fatigue: Tiredness
- Delayed ejaculation (common in men)

Appropriate Dosages

- Fluoxetine (Prozac) starts at 10-20 mg/day, with a maintenance dose of 20-60 mg/day and a maximum of 80 mg/day.
- Sertraline (Zoloft) and Paroxetine (Paxil) have initial doses of 25-50 mg/day and 10-20 mg/day respectively, with maximum doses of 200 mg/day and 60 mg/day.
- Citalopram (Celexa) and Escitalopram (Lexapro) are initiated at 20 mg/day and 10 mg/day respectively, with maximum doses of 40 mg/day (20 mg/day for patients over 60) and 20 mg/day,
- Fluvoxamine (Luvox) for OCD starts at 50 mg/day, with a maximum of 300 mg/day.

Administrative Techniques

- SSRIs should be taken at the same time each day, often in the morning to avoid insomnia, though timing can vary based on patient response and medication type. Most SSRIs can be taken with or without food, but taking them with food may help reduce gastrointestinal side effects. Tablets and capsules should generally be swallowed whole, not crushed or chewed, to ensure proper release and absorption.

Discontinuation Syndrome

- Symptoms:
 - Headache,
 - Insomnia,
 - Nausea,
 - Sensory disturbances,
 - Malaise & flu-like symptoms,
 - Hyperarousal and,
 - Irritability.



Adverse Effects of Specific SSRIs

Drug	Drowsiness	GI Upset	libido	Weight Gain	Insomnia
Citalopram.	-	+	+++	+	-
Escitalopram	-	+	+++	+	-
Fluoxetine	-	+	+++	+	++
Fluvoxamine	+	+	+++	+	+
Paroxetine	+	+	+++	++++	+
Sertraline	+	++	++ ++	+	++

Drug Interactions of SSRIs



Avoid combination of SSRIs with MAOIs (may induce Serotonergic syndrome especially foods high in tyramine).



Potential interactions with TCAs and other CYP450 metabolized drugs.



MAOIs should not be administered within five weeks of discontinuing fluoxetine and 2 weeks with other SSRIs.

Management of Adverse Effects and Potential Interactions

The management of SSRI adverse effects includes taking medication with food, practicing good sleep hygiene, adjusting doses or medications, encouraging physical activity, and balanced diet, while handling potential interactions involves avoiding combinations with MAOIs, monitoring for bleeding with NSAIDs or anticoagulants, and limiting alcohol consumption.

Medication Administration Best Practices

Guidelines:

1. Begin with lowest dose and gradually increase to minimize risks and adverse effects.
2. Follow up every 2-4 weeks to feedback and clinical observations.
3. Take medication as prescribed to achieve optimal outcome.
4. Report any side effects

References

Cowen, P. J. (2024). SSRIs in the treatment of depression: A pharmacological CUL-DE-SAC? *Current Topics in Behavioral Neurosciences*, 66, 1-19.
https://doi.org/10.1007/7854_2023_447.

National Institute for Health and Care Excellence. (2022, June 29). *Depression in adults: Treatment and management (NICE Guideline [NG222])*.
<https://www.nice.org.uk/guidance/ng222>.

Sharp, T., & Collins, H. (2024). Mechanisms of SSRI therapy and discontinuation. *Current Topics in Behavioral Neurosciences*, 66, 21–47.
https://doi.org/10.1007/7854_2023_452.

References

Stefánsdóttir, Í. H., Ivarsson, T., & Skarphedinsson, G. (2023). Efficacy and safety of serotonin reuptake inhibitors (SSRI) and serotonin noradrenaline reuptake inhibitors (SNRI) for children and adolescents with anxiety disorders: A systematic review and meta-analysis. *Nordic Journal of Psychiatry*, 77(2), 137146. <https://doi.org/10.1080/08039488.2022.2075460>

Strawn, J. R., Mills, J. A., Poweleit, E. A., Ramsey, L. B., & Croarkin, P. E. (2023). Adverse effects of antidepressant medications and their management in children and adolescents. *Pharmacotherapy*, 43(7), 675-690. <https://doi.org/10.1002/phar.2767>.

The University of South Florida, Florida Center for Behavioral Health Improvements and Solutions. (2023, June). *2003 – 2024 Florida Best Practice Psychotherapeutic Medication Guidelines for Adults*. https://floridabhcenter.org/wp-content/uploads/2023/07/2023-06-Medication-Guidelines—Adults-Final_06.30.2023.pdf.

Questions



**Enhancing Patient Safety through Staff Education
on Selective Serotonin Reuptake Inhibitor (SSRI)
Medication Administration**

Thank You
for your
participation!



**Appendix B: Pretest for Staff Education on Selective Serotonin Reuptake Inhibitor
(SSRI) Medications**

Directions: This test is designed to identify your current knowledge of SSRI medications. Carefully read each item. Please answer all items by selecting the most correct answer. Circle the Letter of your response for each item.

Identification Number: Please place a six-digit identification number on this test that you will Remember as you will need to use it again following the presentation. Do not use consecutive Numbers. Use a unique string of numbers (e.g., 357834). Only place the number on the test – not Your name or any other personal information.

Six Digit Identification Number:

Time Allocation: You have 15 minutes to complete the pre-test. Ensure you answer all Questions to the best of your ability.

Submission: After completing the pre-test, submit your form to the designated collection point. Remember to keep your six-digit number safe, as you will need it following the presentation.

1. What is the primary mechanism of action for SSRIs?
 - a. Inhibiting norepinephrine reuptake
 - b. Blocking dopamine receptors
 - c. Inhibiting serotonin reuptake
 - d. Increasing GABA levels

2. Which of the following is a common gastrointestinal side effect of SSRIs?
 - a. Hypertension
 - b. Diarrhea
 - c. Insomnia
 - d. Weight gain

3. Why is it important to start with a low dose when initiating SSRI therapy?
 - a. To enhance the drug's effectiveness
 - b. To minimize the risk of adverse effects
 - c. To reduce the cost of medication
 - d. To increase patient adherence.

4. How long should a clinician wait to administer a MAOI after discontinuing fluoxetine?
 - a. 1 week
 - b. 2 weeks
 - c. 3 weeks
 - d. 5 weeks

5. Which of the following symptoms is associated with SSRI discontinuation syndrome?
 - a. Hallucinations
 - b. Euphoria
 - c. Headache
 - d. Weight gain

6. What is a key strategy for preventing medication errors when administering SSRIs?
 - a. Skipping doses when side effects occur
 - b. Double-checking patient information
 - c. Increasing the dose rapidly
 - d. Prescribing multiple SSRIs simultaneously

7. Which SSRI is known to be a strong inhibitor of the CYP2D6 enzyme?
 - a. Sertraline
 - b. Fluoxetine
 - c. Citalopram
 - d. Escitalopram

8. What should patients be advised to do if they miss a dose of their SSRI?
 - a. Double the next dose
 - b. Skip the missed dose and continue with the next scheduled dose
 - c. Stop the medication immediately
 - d. Take the missed dose as soon as they remember, unless it is close to the next dose.

9. Which of the following is a common sexual dysfunction side effect of SSRIs?
- Increased libido
 - Delayed ejaculation
 - Increased energy
 - Improved sleep
10. How often should follow-up appointments be scheduled initially after starting an SSRI?
- Every 6 months
 - Every 3 months
 - Every 2-4 weeks
 - Annually
11. How does alcohol consumption affect the efficacy of SSRIs in treating depression and anxiety?
- Alcohol enhances the therapeutic effects of SSRIs.
 - Alcohol has no impact on the efficacy of SSRIs.
 - Alcohol can reduce the effectiveness of SSRIs and worsen depression and anxiety symptoms.
 - Alcohol only affects SSRIs when taken in large quantities.
12. What precaution should be taken when combining SSRIs with Monoamine Oxidase Inhibitors?
- Administer both medications simultaneously for better results.
 - Allow at least 14 days between discontinuing an MAOI and starting an SSRI.
 - Reduce the dose of SSRI when combining with MAOIs.
 - Increase the dose of SSRI gradually
13. What is the typical initial dose of Fluoxetine (Prozac) for treating depression and anxiety in adults?
- 5-10 mg/day
 - 10-20 mg/day
 - 20-40 mg/day
 - 40-60 mg/day

14. For Sertraline (Zoloft), what is the maximum recommended daily dose for treating Depression?
- a. 100 mg/day
 - b. 150 mg/day
 - c. 200 mg/day
 - d. 250 mg/day
15. When is the best time of day to take Fluoxetine (Prozac) to minimize the risk of Insomnia?
- a. Morning
 - b. Afternoon
 - c. Evening
 - d. Before bedtime
16. Which of the following administration techniques is recommended to reduce Gastrointestinal side effects when taking SSRIs?
- a. Take the medication on an empty stomach
 - b. Crush the tablet before taking it
 - c. Take the medication with food
 - d. Take the medication at bedtime

**Appendix C: Posttest for Staff Education on Selective Serotonin Reuptake Inhibitor
(SSRI) Medications**

Directions: This test is designed to identify your knowledge of SSRI medications following the presentation. Carefully read each item. Please answer all items by selecting the most correct answer. Circle the letter of your response for each item.

Identification Number: Please use the same six-digit identification number on this test that you created for the pre-test. Only place the number on the test – not your name or any other personal information.

Six Digit Identification Number:

Time Allocation: You have 15 minutes to complete the post-test. Ensure you answer all Questions to the best of your ability.

Submission: After completing the post-test, submit your form to the designated collection point.

1. What is the primary mechanism of action for SSRIs?
 - a. Inhibiting norepinephrine reuptake
 - b. Blocking dopamine receptors
 - c. Inhibiting serotonin reuptake
 - d. Increasing GABA levels

2. Which of the following is a common gastrointestinal side effect of SSRIs?
 - a. Hypertension
 - b. Diarrhea
 - c. Insomnia
 - d. Weight gain

3. Why is it important to start with a low dose when initiating SSRI therapy?
 - a. To enhance the drug's effectiveness
 - b. To minimize the risk of adverse effects
 - c. To reduce the cost of medication
 - d. To increase patient adherence.

4. How long should a clinician wait to administer a MAOI after discontinuing fluoxetine?
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 - a. Hallucinations
 - b. Euphoria
 - c. Headache
 - d. Weight gain

6. What is a key strategy for preventing medication errors when administering SSRIs?
 - a. Skipping doses when side effects occur
 - b. Double-checking patient information
 - c. Increasing the dose rapidly
 - d. Prescribing multiple SSRIs simultaneously

7. Which SSRI is known to be a strong inhibitor of the CYP2D6 enzyme?
 - a. Sertraline
 - b. Fluoxetine
 - c. Citalopram
 - d. Escitalopram

8. What should patients be advised to do if they miss a dose of their SSRI?
 - a. Double the next dose
 - b. Skip the missed dose and continue with the next scheduled dose
 - c. Stop the medication immediately
 - d. Take the missed dose as soon as they remember, unless it is close to the next dose.

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 - a. Increased libido
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- 5-10 mg/day
 - 10-20 mg/day
 - 20-40 mg/day
 - 40-60 mg/day
14. For Sertraline (Zoloft), what is the maximum recommended daily dose for treating Depression?
- 100 mg/day
 - 150 mg/day
 - 200 mg/day
 - 250 mg/day

15. When is the best time of day to take Fluoxetine (Prozac) to minimize the risk of Insomnia?
- Morning
 - Afternoon
 - Evening
 - Before bedtime
16. Which of the following administration techniques is recommended to reduce Gastrointestinal side effects when taking SSRIs?
- Take the medication on an empty stomach
 - Crush the tablet before taking it
 - Take the medication with food
 - Take the medication at bedtime