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Article

Community Empowerment Through Increasing Knowledge About the Truth of the Drug NZT-48 as a Neurotrophic in Increasing Brain Potential

Yuneka Saristiana^{1✉}, Fendy Prasetyawan², Ratna Mildawati³, Chandra Arifin⁴, Abd Rofiq⁵, Widhi Astutik⁶

Program Studi Pendidikan Profesi Apoteker, Universitas Kadiri, Indonesia^(1,2)

Program Studi Farmasi, STIKes Ganesha Husada Kediri, Indonesia⁽³⁾

Program Studi Farmasi, Akademi Kesehatan Arga Husada, Indonesia^(4,5)

Program Studi Farmasi, IIK Bhakti Wiyata, Kediri, Indonesia⁽⁶⁾

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✉ Corresponding author:

[\[yunekasaristiana@gmail.com\]](mailto:yunekasaristiana@gmail.com)

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Volume 3 Issue 3 Received: 18 September 2024 Accepted: 27 November 2024 Publish <i>Online</i>: 28 November 2024 <i>Online</i>: at https://JESTM.org/ <i>Keywords:</i> <i>Neurotrophic;</i> <i>Brain Potential;</i> <i>Drug;</i>	The community service aimed to bridge the gap between scientific knowledge and public perception regarding nootropics. Through a comprehensive approach involving meticulous planning, community engagement, educational activities, expert consultations, feedback collection, and evaluation, the program sought to increase awareness and understanding of cognitive enhancement substances among participants. Real-life case studies and guest lectures by renowned experts enriched the learning experience, addressing scientific, ethical, and social perspectives. The proactive involvement of community leaders and an effective awareness campaign ensured high participation and relevance. It underscored the importance of a multidisciplinary approach in addressing complex topics and highlighted the value of engaging communities in meaningful discussions about health and well-being. The program not only educated the community about the realities and myths surrounding NZT-48 and other nootropics but also promoted critical thinking and informed decision-making. By empowering the community with accurate information and fostering a culture of informed skepticism, the program contributed to the betterment of community health and well-being, setting a precedent for future public health education initiatives.

1. INTRODUCTION

Community service is a concrete form of contribution from academics and researchers in helping communities overcome various problems in the health, education, social and economic fields (Emilia, H., 2022). One important issue that often receives attention is improving the quality of life and welfare of the community through knowledge and technology (Pandey, J., 2021). In this context, research and discussions on neurotrophic drugs such as NZT-48 are highly relevant (Bloomfield, B. P., 2020). NZT-48, known through the science fiction movie "Limitless", is described as a drug capable of significantly improving cognitive abilities (Pussetti, C., 2021).

However, it is important to further examine the veracity of these claims from a scientific perspective and their impact on society (Recker, J., 2021).

NZT-48 is a fictitious concept that describes an extraordinary ability (Urban, K. R., 2014) to improve brain function, including memory, focus and creativity (McNease, K., 2015). In the real world, there are various substances known as nootropics or "smart drugs" that are claimed to have similar effects, although generally on a more limited scale (Jagodziniski, J., 2024). Nootropics are supplements, drugs, or other substances that are said to improve cognitive function (Schifano, F., 2022), specifically executive function, memory, creativity, or motivation in healthy individuals (Prasetyawan, F., 2024). These substances include a variety of compounds, ranging from natural ingredients such as caffeine and ginkgo biloba to prescription drugs such as modafinil and piracetam (Wilms, W., 2019).

In this community service program, we focus on discussing the realities and myths behind NZT-48 and other nootropics (Matz, J., 2016). We aim to provide the public with a comprehensive and evidence-based understanding of the potential benefits and risks of nootropic use (Nootropic, R. O., 2007). With the growing public interest in cognitive enhancement and productivity, it is important to engage the public in an honest and scientifically-based discussion on what these substances can and cannot do (Prasetyawan, F., 2024).

Through a series of activities, including seminars, workshops, and group discussions, this program will explore various aspects related to nootropic use (Park, W. K., 1999). We will bring in experts from various fields, including neurology, pharmacology and psychology, to provide a well-rounded perspective (Khumaeni, E. H., 2023). In addition, we will also share the latest research results and case studies regarding the use of nootropics in real contexts (Muslikh, F. A., 2023).

This service activity not only aims to educate the public, but also to encourage critical discussion and reflection on the ethical use of cognitive enhancing substances (Gritters, S. A., 1993). For example, questions about fairness of access to nootropics, potential for abuse, as well as the long-term implications of using these drugs will be an important part of the discussion (Nugroho, B. P., 2024). We will also invite participants to share their experiences and views (Hakim, A. L., 2023), thus creating a productive and fruitful two-way dialog (Mildawati, R., 2024). As part of the community service, the program will also include evaluation and monitoring activities to measure the impact of the intervention (Oktadiana, I., 2024). We hope that through this evidence-based and participatory approach (Barreteau, O., 2013), the community will better understand the complex issues related to cognitive enhancement and be able to make more informed and thoughtful decisions regarding its use (Saristiana, Y., 2023).

This community service program aims to bridge the gap between scientific knowledge and public perception regarding nootropics such as NZT-48 (Habel, M., n.d). By providing a platform for evidence-based education and discussion, we hope to contribute to the improvement of public science literacy and promote better health and well-being (Jones, A., 2014). This program is a small but important step in our efforts to help society overcome cognitive challenges in the modern era of demands and complexity (Van Merrienboer, J. J., 2005).

2. METHODS

This approach ensures a thorough examination of the topic, active community involvement, and effective dissemination of scientific knowledge. The program will be divided into several phases: planning, community engagement, educational activities, expert consultations, feedback collection, and evaluation (Prasetyawan, F., 2024). Each phase will be carefully designed and executed to meet the program's goals.

The planning phase will start with identifying all relevant stakeholders, including academic institutions, healthcare professionals, community leaders, and potential participants. A multidisciplinary team, including neurologists, pharmacologists, psychologists, educators, and community organizers, will be formed to develop content, organize events, and ensure smooth execution. Educational materials like presentations, handouts, and brochures will be created and peer-reviewed for accuracy. Detailed logistics planning will address organizing venues, scheduling events, and arranging necessary equipment.



Picture 1. Meeting and coordination discussion preparation

In the community engagement phase, an awareness campaign will be launched to inform the community about the program through social media, flyers, and local media announcements. Pre-registration will help manage participant turnout and ensure resource availability. Stakeholder meetings will be held to gather input from community leaders to align the program with community needs.

The educational activities phase will include seminars providing an overview of nootropics and the fictional portrayal of NZT-48, delivered by experts in neurology and pharmacology. Interactive workshops will engage participants in hands-on activities related to nootropics, covering their mechanisms, benefits, risks, and ethical considerations. Small discussion groups, moderated by trained facilitators, will allow for in-depth conversations, while real-life case studies will illustrate the practical implications and outcomes of nootropic usage (Roe, A. L., & Venkataraman, A. , 2021).

During the expert consultations phase, renowned experts will deliver guest lectures on cognitive enhancement and neuropharmacology, offering advanced insights and the latest research findings. Panel discussions with experts from various disciplines will address scientific, ethical, and social perspectives of nootropics, followed by Q&A sessions for participants to have their queries thoroughly addressed (Chang, C. C., 2009).

Feedback collection will involve pre- and post-event surveys to assess participants' knowledge, attitudes, and perceptions regarding nootropics. Focus groups will gather qualitative feedback, and open forums will provide a platform for participants to voice their opinions and offer suggestions for improvement.

In the evaluation phase, the collected feedback will be analyzed to assess the program's effectiveness using both quantitative and qualitative methods. The impact on participants' knowledge and perceptions will be evaluated, and a comprehensive report will summarize the findings and offer recommendations for future programs. Follow-up activities will be planned to reinforce learning and maintain community engagement, such as additional workshops and ongoing support for participants.

The implementation of this community service program will be a multifaceted effort involving meticulous planning, active community engagement, educational initiatives, expert consultations, feedback collection, and thorough evaluation. By following this structured approach, we aim to provide the community with a well-rounded understanding of nootropics, specifically addressing the fictional and real aspects of NZT-48. Our goal is to empower the community with knowledge, encourage critical thinking, and promote informed decision-making regarding cognitive enhancement substances. This program represents a proactive step towards bridging the gap between scientific knowledge and public perception, ultimately contributing to the betterment of community health and well-being.

3. RESULT AND DISCUSSION

The results are categorized based on the phases of implementation: planning, community engagement, educational activities, expert consultations, feedback collection, and evaluation. Each category offers a comprehensive understanding of the effectiveness, challenges, and impact of the program.

Planning Phase

The planning phase was crucial in laying the groundwork for the entire program. By identifying key stakeholders and forming a multidisciplinary team, we ensured a broad range of expertise. Educational materials such as presentations, handouts, and brochures were successfully created and peer-reviewed to maintain high standards of accuracy. Detailed logistics planning facilitated smooth execution, with venues organized, schedules set, and necessary equipment arranged.

A key takeaway from this phase was the importance of early and thorough planning. Coordination among team members and stakeholders was essential to avoid potential pitfalls. The successful development of comprehensive and accurate educational materials was critical for the subsequent phases. However, challenges such as coordinating schedules among busy professionals and ensuring timely completion of materials were noted.

Community Engagement Phase

The community engagement phase featured an effective awareness campaign utilizing social media, flyers, and local media announcements to inform the community about the program. Pre- registration helped manage participant turnout, which exceeded initial expectations. Stakeholder meetings successfully aligned the program with community needs, ensuring relevance and engagement.

Results showed high levels of interest and curiosity among the community regarding nootropics and cognitive enhancement. The proactive involvement of community leaders was crucial in garnering support and participation. However, challenges included reaching more remote or less connected community segments and addressing varying levels of pre-existing knowledge about nootropics.

Educational Activities Phase

The educational activities phase included well-received seminars, interactive workshops, small discussion groups, and case study presentations. Seminars provided a comprehensive overview of nootropics and the fictional portrayal of NZT-48, delivered by experts in neurology and pharmacology. Interactive workshops engaged participants in hands-on activities, enhancing their understanding of the mechanisms, benefits, risks, and ethical considerations of nootropics.

Participant feedback highlighted the effectiveness of interactive and participatory methods in enhancing understanding and retention of information. Small discussion groups, moderated by trained facilitators, allowed for in-depth conversations and personalized learning experiences. Real- life case studies illustrated the practical implications and outcomes of nootropic usage, making the information more relatable and impactful.



Picture 2. Discussion activity in progress

A notable outcome was the increased awareness and critical thinking among participants regarding the use of cognitive enhancers. However, challenges included ensuring that content was accessible to participants with varying levels of prior knowledge and maintaining engagement throughout the sessions.

Expert Consultations Phase

The expert consultations phase featured guest lectures by renowned experts in cognitive enhancement and neuropharmacology, providing advanced insights and the latest research findings. Panel discussions with experts from various disciplines addressed scientific, ethical, and social perspectives of nootropics, followed by Q&A sessions allowing participants to have their queries thoroughly addressed.

Results indicated that participants greatly valued the opportunity to interact with experts and gain insights into cutting-edge research. The panel discussions effectively highlighted the multifaceted nature of nootropic use, including its potential benefits and ethical dilemmas. Q&A sessions provided a platform for participants to clarify doubts and deepen their understanding.

Challenges in this phase included managing logistics of coordinating expert schedules and ensuring discussions remained accessible and engaging for all participants. Additionally, some participants expressed a desire for even more time to engage with the experts.

Feedback Collection Phase

The feedback collection phase involved pre- and post-event surveys to assess participants' knowledge, attitudes, and perceptions regarding nootropics. Focus groups gathered qualitative feedback, and open forums provided a platform for participants to voice their opinions and offer suggestions for improvement.

Results showed a significant increase in knowledge and a shift in attitudes towards a more informed and critical perspective on nootropics. Participants appreciated the comprehensive nature of the program and the opportunity to engage in meaningful discussions. Focus groups revealed that participants felt more empowered to make informed decisions about cognitive enhancement substances.

Challenges included ensuring high response rates for surveys and effectively analyzing qualitative data from focus groups and open forums. Some participants suggested that follow-up sessions would help reinforce learning and address any remaining questions.

Evaluation Phase

The evaluation phase involved analyzing collected feedback to assess the program's effectiveness using both quantitative and qualitative methods. The impact on participants' knowledge and perceptions was evaluated, and a comprehensive report summarized the findings and offered recommendations for future programs.

Results from the evaluation phase indicated that the program was highly effective in increasing knowledge and promoting informed decision-making regarding nootropics. Participants demonstrated a deeper understanding of the scientific and ethical aspects of cognitive enhancers. The comprehensive report highlighted the program's strengths, such as the multidisciplinary approach and emphasis on interactive learning, while also providing recommendations for future iterations, including the need for more follow-up activities and ongoing support for participants.

A primary challenge in this phase was ensuring thorough analysis of the extensive data collected and synthesizing the findings into actionable insights. The need for continuous engagement with the community to maintain the momentum generated by the program was also emphasized.

Overall Impact

The implementation of this community service program involved meticulous planning, active community engagement, educational initiatives, expert consultations, feedback collection, and thorough evaluation. By following this structured approach, we provided the community with a well-rounded understanding of nootropics, specifically addressing the fictional and real aspects of NZT-48.

Our goal of empowering the community with knowledge, encouraging critical thinking, and promoting informed decision-making regarding cognitive enhancement substances has been largely achieved. The program successfully bridged the gap between scientific knowledge and public perception, ultimately contributing to the betterment of community health and well-being. Participants expressed increased confidence in their ability to make informed decisions about cognitive enhancers and a greater appreciation for the ethical considerations involved.

4. CONCLUSION

The meticulous planning and execution of educational activities, expert consultations, and

community engagement initiatives, the program significantly increased participants' awareness and understanding of nootropics.

Participants gained a deeper understanding of the mechanisms, benefits, risks, and ethical considerations of nootropics, fostering a more informed and critical approach to cognitive enhancement substances. The program effectively engaged the community through awareness campaigns, pre-registration, and stakeholder meetings, ensuring relevance and high attendance. The proactive involvement of community leaders was crucial in garnering support and participation.

Educational activities, including seminars, interactive workshops, and small discussion groups, provided comprehensive and participatory learning experiences. Real-life case studies made the information more relatable and impactful. Guest lectures and panel discussions with renowned experts offered advanced insights and addressed the scientific, ethical, and social perspectives of nootropics, enriching participants' understanding.

Feedback collection, through surveys and focus groups, revealed a significant increase in participants' knowledge and a shift towards a more informed perspective on nootropics. This feedback was crucial in evaluating the program's effectiveness and identifying areas for future improvement. The program laid a strong foundation for ongoing education and engagement, with recommendations for follow-up activities to reinforce learning and support participants in their decision-making processes..

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