

**SELECTED POSTERS IN PREVENTION FOR PUBLIC HEALTH
AT THE 2024' CONGRESS OF THE POLISH PUBLIC HEALTH
SOCIETY**

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ABSTRACT

This prevention poster session, presented at the VII International Congress of the Polish Public Health Society, has topics including barriers and benefits of breast cancer prevention programmes in Poland, and the role of fitness clubs in promoting healthy lifestyles, particularly in preventing diseases like obesity and cardiovascular issues. It encompassed a wide array of disease prevention strategies and initiatives. The selected poster session addressed among others, nicotine addiction in pregnancy and its correlation with health-promoting behaviour of pregnant women. Furthermore, the session explored women's participation in selected cancer prevention programmes, such as mammography and cytology. The session also reviewed practices supporting COVID-19 vaccinations during the pandemic in Poland and Ukraine. Lastly, an initiative promoting physical and mental health awareness, focusing on cancer prevention was presented. The presented research underscores the importance of targeted interventions, evidence-based practices, and ongoing education in addressing current public health challenges, especially in areas of cancer prevention, health promotion, and vaccination uptake.

Keywords: public health, cancer prevention, health promotion, pregnancy, vaccination, COVID-19, mental health, physical activity, health education

INTRODUCTION

The following posters on prevention were presented within the prevention section at the VII International Congress of the Polish Public Health Society, themed "Prevention - A Great Investment in Public Health," held on November 27-28, 2024, at the MSWiA National Medical Institute, Warsaw (*). A considerable portion of the session was dedicated to cancer screening and prevention, including discussions on the barriers and benefits associated with various cancer screening programmes in Poland (the implementation and cost-effectiveness of a national cancer prevention programme were also presented). Oncology prevention also has a very important representation for cervical cancer, breast cancer and colorectal cancer - new challenges in posters. In the realm of infectious disease prevention, research on health beliefs and vaccine attitudes, particularly concerning influenza and COVID-19, was presented in line with a key message:

vaccinations as the most effective method of preventing infectious diseases with examples of seniors. The very important problem was raised on the growing and alarming threat of fentanyl overdoses in both the United States and Europe. The session also featured a discussion of the epidemiology of autism spectrum disorders (ASD) in Poland, comparing its prevalence to that of other European countries and the United States. The need for reliable data and further research was emphasised. The research delves into crucial areas, including: barriers and benefits of breast cancer prevention programmes in Poland, a significant concern given the high incidence of breast cancer among women (Didkowska et al., 2022). We will examine the potential of fitness clubs to become centres for health promotion, aligning with the growing emphasis on physical activity in preventing non-communicable diseases (WHO, 2018). The session will address the critical issue of nicotine addiction during pregnancy and its impact on maternal and child health, in areas requiring continued research and intervention (Tong et al., 2009). We will further investigate women's participation in cancer prevention programs, specifically mammography and cytology, highlighting the need to improve screening rates (Sabatino et al., 2012). The discussion extends to a review of practices supporting COVID-19 vaccination during the pandemic in Poland and Ukraine, reflecting the global efforts to combat the pandemic. The review of COVID-19 vaccination practices, a global priority emphasised by multiple agencies, provides valuable lessons for future pandemic preparedness, especially from a regional perspective (Jarynowski, Skawina, 2021).

CHAPTER 1: BARRIERS AND BENEFITS OF BREAST CANCER PREVENTION PROGRAMMES IN POLAND

The poster was presented by Agnieszka Dyzmann-Sroka, who is the sole author.

Breast cancer is the leading kind of malignancy among women in Poland. Mammography is recognised as a non-invasive diagnostic technique; yet, there exists a notable deficiency in the frequency of routine preventative screenings among Polish women. The original questionnaire survey was designed under the direction of the article's author and conducted by students of Poznan University of Medical Sciences between June and August 2022. It involved 531 women aged 50-69 years. The study group was determined by women living in cities (63%) and currently working (72%) with higher and secondary education (38% each). Only 48% of the respondents have performed a mammography test in the last 2 years. The most common barriers were: fear 83% (of diagnosis, pain, unknown test, radiation, belief that mammography will cause cancer), indicate a lack of knowledge 43% (of where such a test can be done and about the test itself, that such a test can be done at all), 40% indicate a lack of time. The early detection of breast cancer significantly enhances the likelihood of achieving a full remission. Although most Polish women are aware that they can take a preventive test, still

too few women get a mammogram. There is a need for modifications to be made in the precautionary screening system in order to enhance women's motivation to engage in preventative care.

CHAPTER 2: GYM AS A PLACE FOR PROMOTING A HEALTHY LIFESTYLE – HOW FITNESS CLUBS CAN BECOME CENTRES OF HEALTH IMPROVEMENT?

The poster was presented by Nicholas Karolak, who is the sole author.

Fitness clubs increasingly support healthy lifestyles, aiding in preventing diseases like obesity, cardiovascular issues, musculoskeletal disorders, mental health challenges, chronic respiratory diseases, and autoimmune conditions. Tailored exercises, guided by trainers or physiotherapists in consultation with doctors, are crucial. However, their potential as public health hubs in Poland remains underutilised. Fitness clubs increasingly play the role of places that support a healthy lifestyle, which can be important in the prevention of civilization diseases such as obesity and overweight, cardiovascular diseases, musculoskeletal disorders, mental disorders, chronic respiratory diseases, and autoimmune diseases. However, it is crucial to adapt the type of exercise to the needs and abilities of the individual, preferably under the supervision of professional trainers or physiotherapists in consultation with the attending physician. The potential of fitness clubs as public health centres in Poland remains largely untapped. The review indicates that fitness clubs in Poland mainly focus on physical training, while additional services such as dietary workshops, health consultations, or relaxation classes are rare. Personal trainers have the potential to promote a healthy lifestyle, but they lack proper training and knowledge in public health. In countries where trainers are integrated into the public health system, health-promoting activities are more effective. Clients positively evaluate fitness clubs as places that support a healthy lifestyle, but they point out the lack of comprehensive educational programmes, dietary consultations, and psychological support. A literature review analysed the role of fitness clubs in health promotion and personal trainers' involvement in education. Key aspects included club offerings (workshops, consultations), trainers' roles (competencies and integration into public health systems), and client opinions (survey results). Findings highlighted current knowledge and identified gaps in integrating fitness clubs with public health initiatives. The review indicates that fitness clubs in Poland focus primarily on physical training, with additional services like dietary workshops, health consultations, and relaxation sessions rarely available. Personal trainers play a significant role in promoting healthy lifestyles, but their educational efforts are limited by a lack of training and public health knowledge. In countries where trainers are integrated into public health systems, preventive efforts are more effective. While clients view fitness clubs positively as health-supporting spaces, they note the lack of comprehensive educational programmes. There is a strong demand for more dietary consultations and psychological support. Fit-

ness clubs in Poland have untapped potential as public health promotion enters. Combining physical activity with health education, dietetics, and psychological support could enhance their role in preventing diseases like obesity and cardiovascular conditions. The literature review also reveals research gaps regarding the effectiveness of fitness club activities and their cooperation with the public health system in Poland. Fitness clubs in Poland have the potential to become centres for promoting public health. Combining physical activity with health education could significantly improve the prevention of civilization diseases, such as cardiovascular diseases. A key aspect is enhancing the competencies of personal trainers in public health through training and collaboration between fitness clubs and healthcare institutions. Cooperation with specialists, such as doctors and psychologists, can increase the effectiveness of preventive actions. Introducing educational programmes for trainers and developing a network of cooperation with local healthcare facilities would further enhance the role of fitness clubs in promoting a healthy lifestyle and disease prevention.

CHAPTER 3: NICOTINE ADDICTION IN PREGNANCY – WOMEN'S BEHAVIOUR AND THEIR KNOWLEDGE ABOUT THE HARMFUL EFFECTS OF SMOKING – A SYSTEMATIC REVIEW

The poster was presented by Aleksandra Sołtysiak, who prepared it with co-authors: Marta Grelowska and Dorota Kiedik.

Exposure of unborn children to maternal smoking or secondhand smoke is associated with birth defects, stillbirths, preterm births, and infant deaths. Maternal smoking during pregnancy is associated with a doubling of the risk of sudden infant death and birth defects, while exposure to secondhand smoke during pregnancy is associated with a 23% increased risk of stillbirth. The aim of the study is to determine whether knowledge about the harmfulness of nicotine addiction and awareness of its effects correlate with health-promoting behaviour of pregnant women. Inclusion criteria: studies conducted among pregnant women, studies on tobacco and e-cigarette use Exclusion criteria: studies conducted among women during the postpartum period or before conception; studies on stimulants other than tobacco, passive smoking .Limitation of the study: only a few studies conducted in Western and Central European countries, conducted mainly in patriarchal societies Results: Women know about the harmful effects of smoking during pregnancy, but they do not know the tools to do it properly and effectively. The lack of education about safe smoking cessation causes the abuse of e- cigarettes instead of traditional tobacco. Pregnant women often quit smoking during pregnancy for socio-cultural reasons. Pregnancy is a motivating factor to quit smoking. The topic of educating men on how to prevent passive smoking in pregnant women is gaining popularity. Conclusions: A thorough study should be conducted among Polish women/residents of Central Europe. There is a need to educate pregnant patients about the harmful-

ness of both e-cigarettes and traditional tobacco. A systematic programme of educating pregnant women about ways to cope with quitting smoking should be introduced.

CHAPTER 4: WOMEN PARTICIPATION IN SELECTED CANCER PREVENTION PROGRAMMES

The poster was presented by Magdalena Konieczny, who prepared it with co-author Izabela Gąska.

Breast cancer and cervical cancer prevention is an area in which there is still too little involvement of Polish women in free preventive examinations (mammography and cytology). Compared to other European countries, the participation rates of Polish women in prevention programmes are lower.

Increasing women's participation in cervical cancer prevention and mammography is crucial for improving public health and early detection of cancer. A total of 415 women were included in the study. Women's participation in free prevention programmes for cervical cancer (cytology, 415 women) and breast cancer (mammography, 235 women) was analysed. A diagnostic survey method was used and the research tool was a Questionnaire Survey of our own design. Statistical calculations were performed using STATISTICA v. 13 ($p < 0.05$). 54.5% of women did not regularly participate in available cancer prevention programmes including 25.4% of those surveyed who had never had one. Women who had never taken part in this type of test did not do so for the following reasons: fear of being detected (65.3%), belief that they were healthy (45.3%), feeling uncomfortable during the test (44.5%), belief that this type of test is ineffective (15.5%), problems finding a facility where the test can be performed (11.2%). Women's participation in preventive oncology screening was unsatisfactory. Younger women, those with higher education and those living in urban areas, were more likely to participate in this type of tests compared to older women, those with lower education levels and those living in rural areas. Educational promotional and motivational activities should continue to be undertaken to increase women's awareness of the effectiveness of cervical and breast cancer prevention.

CHAPTER 5: REVIEW OF PRACTICES SUPPORTING COVID-19 VACCINATIONS DURING THE PANDEMIC IN POLAND AND UKRAINE

The poster was presented by Gabriela Krężel, who prepared it with co-authors: Magdalena Sikorska, Rafał Halik, Marcin Grysztar, Szczepan Jakubowski, Olena Stropalova, and Mariusz Duplaga on behalf of the EUVABECO Consortium.

Vaccination is an efficient method of preventing infection transmission in society. The COVID-19 pandemic acted as a catalyst for implementing various strategies to enhance vaccination uptake.

Identifying these actions was one of the first tasks planned within the EUV-ABECO project, co-funded by the European Union under EU4Health Grant N° 101132545. A scoping review, conducted to analyse vaccination practices that supported COVID-19 vaccination, covered the period from March 2020 to June 2023. The analysis drew from diverse sources, including scientific publications, recommendations, government documents, and media reports. The review identified 11 vaccination practices: 9 in Poland and 2 in Ukraine. These practices fell into three main categories: interventions to increase the healthcare system's capacity, actions to raise public awareness of vaccination, and activities to boost community engagement. The first category included expanding the pool of vaccinators (e.g., for pharmacists), improving access through mobile vaccination units, and prioritising vulnerable groups for vaccination. The second category covered health education campaigns, counter-disinformation efforts, and actions to build public trust in vaccination. The third category focused on community engagement and mobilisation, such as the "Growing Immunity" competition for municipalities in Poland. Various innovative approaches were implemented during the COVID-19 pandemic to increase vaccination uptake in Poland and Ukraine. These practices generally required a collaborative approach involving multiple stakeholders and professional groups. Evidence on the effectiveness of specific strategies remains limited however, as outcome evaluations of these practices were rarely conducted.

CHAPTER 6: PINK OCTOBER – TAKE CARE OF YOURSELF

The poster was presented by Iwona Janiak-Rejno, who prepared it with co-authors: Ewa Popowicz, Agnieszka Żarczyńska-Dobiesz, and Jolanta Grzebieluch.

In 2023–2024, Wrocław University of Economics and Business launched the 'Pink October – Take Care of Yourself' initiative to promote physical and mental health awareness, focusing on cancer prevention. Aimed at both women and men, the programme highlighted cancer screenings and mental health support, expanding its scope to assist young adults facing psychological crises. To achieve its health awareness goals, 'Pink October – Take Care of Yourself' included expert-led lectures, interactive workshops on cancer prevention, and one-on-one sessions with psychologists for mental health support. Collaborations with top regional institutions, such as the Silesian Center for Oncology, Pulmonology, and Hematology, enhanced reach and credibility, providing participants with vital medical resources and expertise. The 'Pink October – Take Care of Yourself' event saw high engagement, with over 500 participants attending lectures, workshops, and consultations. Feedback indicated increased awareness and a positive shift in attitudes toward regular health screenings and mental well-being. Participants reported a more robust understanding of preventive health measures and felt more equipped to recognise mental health warning signs. Collaborations with regional medical institutions provided attendees practical

resources, enhancing their access to further support. The initiative strengthened the university's role as a proactive health advocate, successfully integrating physical and mental health education within its community. The 'Pink October - Take Care of Yourself' initiative raised cancer prevention and mental health awareness through education, workshops, and individualised support. Collaboration with regional healthcare institutions improved access to resources, fostering an inclusive, health-focused culture at the university. This impactful programme underscores the university's commitment to proactive health and mental wellness for students and faculty.

CONCLUSIONS

A strong emphasis on preventative measures is evident across multiple presentations. From promoting physical activity and healthy lifestyles to encouraging cancer screenings and vaccinations, the research highlights the critical role of prevention in reducing the burden of disease and improving population health. This aligns with the overarching theme of the VII International Congress of the Polish Public Health Society. The studies presented demonstrate that "one-size-fits-all" approaches are often insufficient in public health. Tailoring interventions to specific populations, such as pregnant women, university communities, or shift workers, is crucial for maximising effectiveness. Understanding the unique needs, barriers, and motivators of different groups is essential for designing successful programs. The need of systematic programme evaluation was also discussed.

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