



# **Newsletter - The School of Public Health**

Faculty of Social Welfare & Health Sciences
University of Haifa

Editor in Chief: Prof. Shira Zelber-Sagi

Producer: Mor Koretskiy Shilo

Contact Us:
School of Public Health
Tel: 04-8288597
mliberzon@univ.haifa.ac.il



# A Message from the Head of the School of Public Health

Prof. Shira Zelber-Sagi

This academic year (2022/2023) opened with signs of growth for the School of Public Health. The academic staff is growing, and new specializations are evolving! This year, new faculty has joined our staff in the fields of health promotion - Dr. Mika Moran, epidemiology - Prof. Stephen Levin, and statistics - Dr. Yuval Nov. They have brought with them the establishment of new and exciting courses that reflect the unique, multiprofessional interand disciplinary nature of the School of Public Health in Haifa. Dr. Mika Moran expands the field of health promotion to healthpromoting and sustainable environments. Prof. Stephen Levin introduce the mental health field and emphasized its importance in public health alongside the deepening of epidemiological research methods.

Dr. Yuval Nov enriches the school's statistics courses, promotes the subspecialization of biostatistics, and accompanies students during data analysis for their research.

In the spirit of the school's innovation, this vear opened the first specialization of its kind in Israel in Bioethics and Public Health, led by Dr. Advocate Maya Peled Raz. The profession aims promote to integration of ethics in health policy decision-making processes at various levels: and institutional individual treatment policy and governmental regulation. The studies in the program combine in-depth an acquaintance with the health system in Israel, its unique characteristics and needs, with basic philosophical concepts, moral theories, and the principles of bioethics and Israeli health regulation.

The specialization emphasizes the interface between all these fields and provides tools for their integration.

The opening event was a conference about the "Ethics Regulation aspect of and Research among Humans", July 2022. held in The conference in was collaboration with the Department of Philosophy at the University of Haifa. Prof. Daniel Statman, Head of the Department of Philosophy, of Humanities. Faculty University of Haifa and DR. Sagit Mor, Head of the Center for Health, Law and Ethics, Faculty of Law, University of Haifa who gave opening remarks. Experts and thought leaders from various institutions all over the country presented at the conference, including the Ministry Health, the IDF, HMOs, the Ministry of Education, and other departments at the University of Haifa - nursing and anthropology.

This year we will celebrate the affiliation of the District Health Bureau in Haifa with the Faculty of Welfare and Health Sciences at the University of Haifa and the long-standing collaboration with the School of Public Health.

On February 6, 2023, a first joint conference was held. The affiliation between the School of Public Health of the University of Haifa and the Haifa District Health Bureau enables familiarity with the Ministry of Health's policy and its implementation methods, practical experience, and collaboration in research (e.g. data collected and reported in health bureau like infectious disease reporting, mother and child canters records and more).

This year, we have the honor of hosting the Annual conference of the Association of Public Health Physicians and Schools of Public Health, which will be held on June 11, 2023. The conference will include fascinating lectures by stakeholders, experts and policy makers in diverse fields of public health and workshops in Hebrew and English.

The school of Public Health has extensive international activities, and an excellent example is the Erasmus project in which we take a part in. The School of Public Health at the University of Haifa has received the Erasmus+ European funding for a three-year joint project with Israeli and

European Public Health schools. The program, entitled "Sharing **European Educational Experience in** Public Health for Israel (SEEEPHI)", aims to enhance the public health workforce in Israel through sharing European educational experience, including Harmonization, Employability, Leadership, and Outreach. The consortium is led by the Association of Schools of Public Health in the European Region (ASPHER) and eight Israeli and European high education institutes: Ben-Gurion University, the Hebrew University, University of Haifa. Ashkelon Academic College, Maastricht University (Netherlands), Cork University (Ireland), Swedish Red Cross University (Sweden) and Jagiellonian University (Poland). The Israeli Association of Public Health Physicians is also a partner in the project. As part of the project, we are building with our partners, an online platform that will help public health professionals find employment in their field. The online platform is planned to go live at the Annual Conference of the Association of Public Health Physicians Schools of Public at the University of Haifa on June 11, 2023. Partners from the SEEPHI project, both from Israel and abroad, will participate in the conference. We will also conduct a unique job affair as part of the conference.

This year, the school awarded a certificate of excellence to five Ph.D. students who published in Q1 journals at least one scientific paper from their thesis.

These are the names of the outstanding students. We are proud of you!



- Nour Abed Elhadi Shahbari
- Victoria Peer
- · Ricky Bitton Cohen
- Inbal Globus
- Dana Ivancovsky-Wajcman

In the photo, the ceremony of awarding the certificates to Ph.D. students and their supervisors, Prof. Manfred Green, Prof. Anat Gesser-Edelsburg and myself.

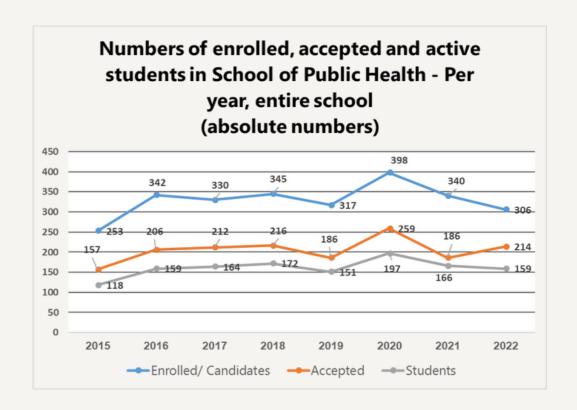
We wish all our new and continuing students a fruitful and enjoyable academic year, to gain new insights, and enjoy the experience with the academic and administrative staff!

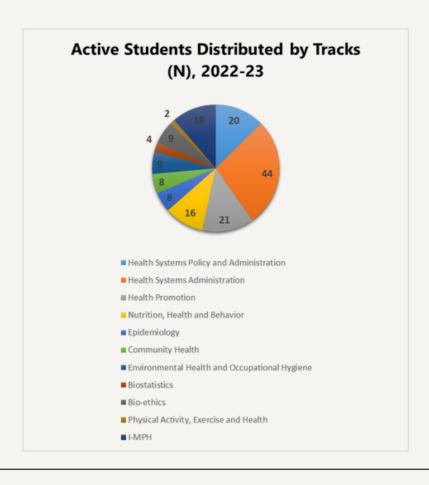
In the photo, the class of 2022-2023, good luck!

Yours, Shira

good luck









# We welcome: Prof. Stephen Levine

I am a full professor at the University of Haifa with a PhD specializing in quantitave psychology. I undertook a post-doc focusing on analyzing clinical trial and observational data on schizophrenia. I have over 15 years of post-doctoral experience implementing advanced statistical techniques, mostly in R, to examine psychiatric epidemiology, particularly neurodevelopmental and neurodegenerative disorders. I became a professor in 2011, accumulated over 120 peer-reviewed journal publications, including in journals such as The BMJ, and JAMA Psychiatry, and have established collaborations stretching over a decade with colleagues in the US, Germany, and Sweden.

My research program focuses on psychometrics and psychiatric epidemiology, with the overriding objective of identifying risk and preventative factors for Autism Spectrum Disorder, schizophrenia, and dementia. The first theme of my research program is identifying modifiable parental factors that imprint on the child to elevate the risk of neurodevelopmental disorders. For example, our group identified that maternal folate during pregnancy reduces the likelihood of the risk of Autism Spectrum Disorder in the offspring. Second, in schizophrenia, I aim to identify risk factors and quantify the heterogeneity of schizophrenia. Third, in dementia, I am interested in identifying modifiable risk factors, and so far, I have examined, for example, the effects of antidepressants, opioids, and folate serum blood levels on dementia risk.

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Maternal folate
during pregnancy
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Spectrum
Disorder in the
offspring





# We welcome: Dr. Mika Moran

I specialize in interdisciplinary research on environmental and social determinants of health. My research is based on the premise that the environment in which we live shapes a great deal of our behavior and can therefore provide an accessible and cost-effective intervention platform to promote public health and well-being. The overarching goal of my research is to generate knowledge that can be used to promote the health and quality of life of the general population, with an emphasis on specific groups, who are more likely to be exposed to higher health risks and poorer prognoses. Correspondingly, a large part of my research targets underrepresented age-groups, ethnic minorities. rural communities, and disadvantaged populations and regions.

I combine ln my research, theoretical and methodological approaches, which I gained during my Masters' in Public Health (University of Haifa, first cohort), and my PhD studies in Urban and Regional Planning (Technion). My research methods are divers and include quantitative (spatial analysis, statistical analysis) and qualitative (walk-along interviews, cognitive mapping) methods. My research covers various settings and scales ranging from individuals' activity spaces (e.g., children's walking routes to school and outdoor play areas) through residential neighborhoods, cities and metropolitan regions.

Guided by the socio-ecological model of health promotion, my research agenda is driven by two key questions: (1) How do environments shape health behaviors and related health

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outcomes? and (2) To what health disparities extent are driven inequalities bv environmental and social determinants? The first question has been the focus of my studies on neighborhood determinants of health, while the second has been the focus of my research on the greenspaces, health and health inequalities.

#### **Activity friendly environments**

Activity friendly environments are characterized by high walkability and high access to recreational spaces. Such environments are particularly important for children due to their low independent mobility on the one hand, and high and rising prevalence of childhood overweight obesity, on the other hand.My PhD research examined associations between GIS-based environmental variables children's self-reported activities. Results showed that highly walkable environments - marked by access to destinations (retail, recreational and public facilities), high densities and connected street networks - were positively, negatively and null associated with children's walking, biking outdoors, and playing respectively (Moran, Baron-Epel and Plaut, 2016).

These findings have honed the need for a better distinction between children-related environmental walkability, bikeablilty and playability in order to guide urban policies and public health interventions.

Various other questions emerged from this study, for example, how environmental elements at the level influence route can children's route choices? explored this auestion bv analyzing children's routes to daily destinations, such as schools, community centers or parks, while comparing urban and suburban neighborhoods (Moran, Rodríguez and Corburn, 2018). According to the results, children who live in neighborhoods with hiah intersection density walk more frequently, but choose to walk along routes with fewer intersections. These results point at an ecological paradox according to which intersection density facilitates walking at the neighborhood level but hinders walking at the route level, and highlight an important planning challenge stemming from the need to achieve high walkability while maintaining high traffic safety.

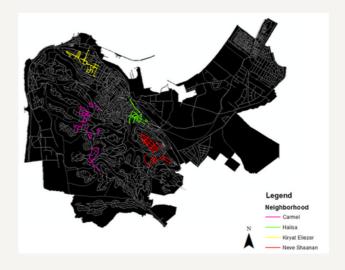
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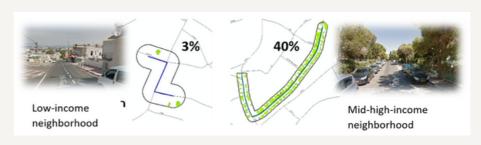
Activity friendly environments are characterized by high walkability and high access to recreational spaces



Another age-group that intrigues me are older adults, who are likely to spend excessive time in their home neighborhoods and are also more likely to walk and benefit from walking. In attempt to identify age-related walkability metrics and methodologies, I collaborated with international colleagues to systematically review the qualitative literature (Moran et al., 2014). Results showed that, compared to traditional indoor interview methods (e.g., focus groups, in-depth interview), spatial qualitative methods (e.g., go-along interviews, photo-voice) were more likely to yield themes reflecting older-adults' therefore age-related needs. We concluded that integrating spatially oriented qualitative methods can provide a fuller and more nuanced description of the environment-health nexus. This review provided a basis for my later work as PI and research coordinator in a community based participatory research on "healthy and age-friendly neighborhoods" (funded by the Joint-Eshel). Data collected in this project was analyzed through innovative mixed method design matching quantitative GIS route data with audio-narratives. participants' Results associations showed between participants' perceived walkability with routes objectively

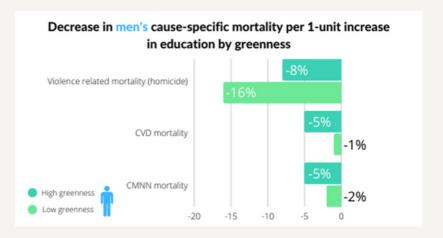
measured geometrical traits (i.e., distance, slope) and urban features (i.e., land-uses, greenery) (Moran et al., 2017). Socioeconomic disparities were also detected suggesting that residents of high-income neighborhoods were more satisfied of their walking routes and walked along routes that were longer, greener, and included fewer commercial uses. This project's impact extended beyond the academic milieu and into the community. For example, Iplanned and cofacilitated meetings during which study participants presented their neighborhood concerns to local authority decision makers. Based on these meeting, the city of Haifa (Israel) conducted infrastructure improvements (adding curb cuts, filling holes, repainting sidewalks) along a route commonly used by the study's participants.

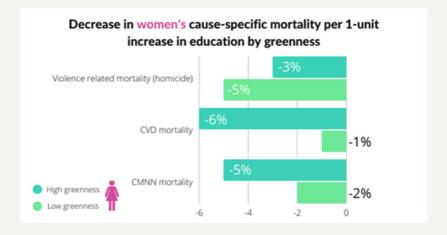




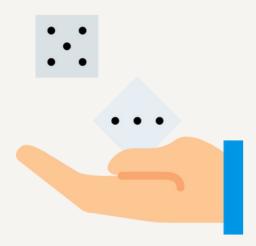
# Greenspace, health, and health inequalities

A more recent focus in my research has been on greenspaces and health, of my work part in as interdisciplinary international project SALURBAL or "Salud Urbana en America Latina" (Urban Health in Latin America). I explored the equigenesis hypothesis of greenspaces, which argues that greenspaces have the to reduce health disparities, examining death records from 2012-2016 for 671 sub-cities located within 28 cities across 9 Latin American countries (Moran et al., 2021). This study points at strong correlations between education and reduced mortality thereby confirming the wellknown health disparities within Latin **American** cities. The results concerning the equigenesis hypothesis, however, were inconclusive. For example, among each 1-unit increase men. education was associated with a 16% decrease in violence-related mortality in the least green areas, but only an 8% decrease in the greenest areas. These results support of equigenesis hypothesis by showing greener areas had smaller education inequalities in violencerelated mortality. However, findings related to other causes of death and to life expectancy question hypothesis the equigenesis showing wider education inequalities in these outcomes in greener areas.





In closing, as a graduate of the first cohort at the School of Public Health in the health promotion specialization, I had the opportunity to experience a special and inspiring period of growth and development. Starting off as a research assistant of Prof. Orna Baron-Epel I gained invaluable experience in a variety of topics and methods related to social and environmental determinants of health. I also had the opportunity to work alongside Prof. Rafi Karel (of blessed memory) were I expanded my experience to various aspects of environmental health, and learned about the voluntary activity as a doctor in Africa. I was initially introduced to the concept of transportation - converting trips into walking, cycling and using public transportation - by Prof. Ronit Endevelt while attending her class on healthy living. This is a central factor in research on health-promoting environments, which was and still is the subject of many studies in which I am involved. In light of this, it is with great honor and joy that I am joining the School of Public Health.



## We welcome: Dr. Yuval Nov

Ever since I was a child, I was fascinated by probability. I remember how I discovered independently some simple probability rules, after learning how to play backgammon. Years later, when I took my first academic probability course at the Technion, I knew I was hooked.

Later on I got a masters degree and a PhD from Stanford University, and then spent two years at New York University. I returned to Israel in 2006, to the Department of Statistics at the University of Haifa, and moved to the School of Public Health at the beginning of this academic year.

In my research I combine applications of statistics, probability, and operations research toward questions and problems in life sciences and medicine.

Recently, I became interested in some operational aspects of running bone marrow donor registries. Bone marrow donations are different in several important respects from blood donations and solid organ (heart, liver, etc.) donations, and I am interested in finding ways to optimize the donor search process.

I have collaborated with many researchers from Israel and abroad, including from Stanford University, Max Planck Institute, the National University of Singapore, the University of Manchester, the Technion, and with medical doctors from Rambam and Bnai Zion hospitals.

In my work I use extensively the R programming language, which is a free and open-source language that was developed especially for statistics and probability. I have taught courses in R programming many times at the university of Haifa, and have run R workshops for researchers in various fields.

Since 2019, I have been a board member of the Israeli Statistics Association, whose goal is to promote and enhance the practice of statistics and probability in Israel.

This year (2022-23), I'll be teaching at the School of Public Health called а course "statistical thinking," which deals with guiding principles for proper use of statistics, and in ways to avoid common statistical pitfalls. In addition, I will be teaching the course "biostatistics C," which covers some biostatistics R packages. Through yet another course, I assist graduate students in the statistical analysis needed for their research.

# The new specialization of "Bioethics and Public Health"



# Dr. Adv. Maya Peled Raz , Head of the Bioethics and Public Health Specialization

With the opening of the 2022-2023 school year, 9 new students joined the School of Public Health, who began their studies in the new specialization program in bioethics and public health.

The program, which is similar to that held in the best universities around the world, is the only one in the landscape of study programs in Israel, and unique as a whole in Israeli academia, as it combines an in-depth acquaintance with Israeli health system ,along with its unique characteristics and needs, with basic philosophical concepts, moral theories and the principles of bioethics, as well as with Israel's health regulation - emphasizing the interface between them providing tools for their integration in the work field.

Initial thoughts about establishing the specialization in bioethics arose as early as 2019, but its establishment received a significant boost by the covid-19 epidemic, and the insights that emerged during it, regarding the importance of ethics and legal understanding in decision-making processes in healthcare and public health.

# Why is a specialization in bioethics and Public Health required at all?

Bioethics is a branch of general ethics, which applies general ethical teachings and principles problems concerning human health, public health and all areas of life sciences and health sciences. The research in this field deals with dilemmas from all stages of life, through issues of ethics caretaker-patient relationships and ending with issues of distributive justice and policy decision-making in public health.

Bioethics is a main component of all therapeutic activities, making policy decisions and writing procedures in the health system, research with human participants and training students in the health professions.

The recognition of the importance of integrating ethical thinking and demand for those the with specialized training in bioethics in the health system in Israel have increased significantly in recent years and were emphasized even more during the covid-19 period. Expertise in bioethics is required, among other things, in clinical ethics committees as well as research ethics committees in the health system and is an essential tool for understanding and properly applying legislation and procedures. The deepening and expansion of ethical training among the workers in the system will enable better clinical conduct. while reducing the phenomenon of ethical stress, which characterizes the work of many care-workers in the system, and which stems from a continuous state of doubts regarding the morality of their conduct.

In addition to gaining familiarity with the body of knowledge, ethical thinking tools and an understanding of legal mechanisms and tools, the program seeks to promote an understanding of the ethical decisions underlying healthcare regulation in Israel, and of the legal consequences of policy-making processes on the health care system, its employees, and its consumers.

Alongside imparting ethical and legal tools to those in the clinical professions, the program also works "in the opposite direction" - to impart knowledge about the healthcare system, its characteristics needs, to jurists already working within the healthcare system or seeking to integrate into it. This kind knowledge of is essential. considering the expansion of the legal advisory systems in the various health institutions, and the increase in recent years in the demand for training lawyers in the intricacies of the health system, and in the unique complexities that arise within this system.

# So what can one learn in the program?

Following the first semester of the program, which provides students with an initial introduction to the health system, to public health principles and to epidemiological and biostatistical tools, the teaching in the program moves to focus on tools for ethical thinking and discussion, moving from the general - an introduction to ethics and moral theories, to the more focused - bioethics, and from there to specific discussions in issues of therapeutic conduct and health technologies.

At the same time, the specialization track directs the spotlight to the regulatory and judicial framework, within which the health system operates. It introduces, discusses and imparts tools for critical thinking on central laws and court rulings, which relate to state-citizen relationship, clinicians-patients relationship, human research, environmental health, health system structure and the relationships of the various actors within it (Ministry of Health/hospitals/funds, etc.) and risk management.

#### Who is the program for?

The program is intended for professionals in healthcare, administration, and law, who work within the health system in Israel, or who wish to integrate into it. Those professionals who routinely deal with complex decision-making processes - either at the clinic and field level, or at the management and public policy spheres.

Currently, students in the program are from the professions of medicine, nursing, medical management, and emergency care (paramedic) – who will later be involved in working in the field as well as in academic research.

Good luck to everyone.

Dr. Adv. Maya Peled Raz, Head of the Bioethics and Public Health Specialization

# Can the UN Climate Conventions save the planet?

# Dr. Maya Negev, representative of School of Public Health at The UN Climate Convention 2022, Sharm El Sheikh, Egypt

In November 2022, the 27th UN Climate Change Convention of the Parties (COP) took place in Sharm El High-level Sheikh, Egypt. representatives of all countries in the meet annually this world in convention in order to... save the world! Presidents, Prime Ministers, Ministers and diplomates convene to negotiate the future of planet earth. At stake: how many greenhouse gas (GHG) emissions will each country commit to mitigate? Climate change, or in its current name "the climate crisis", is one of the great risks to public health in our times. The atmosphere that surrounds planet earth includes GHG such as CO2, methane and water vapor. The atmosphere creates the "greenhouse effect", enabling some of the sun radiation to enter earth and some to exit, enabling comfortable life on earth. But, since the industrial revolution, humans emit too many GHG from industry, transportation, energy production from pollution sources such as coal, oil and gas, and the balance is interrupted. Earth is warming, and extreme events occur more often, including giant wildfires from California to Australis, Floods of towns and fields in Bangladesh, Pakistan and Germany, and deadly heatwaves throughout the world.

Even in Canada the record last summer was 49.6 degrees Celsius. Cold spells, hurricanes and droughts – are all exacerbated due to climate change. The climate crisis causes a rise in mortality, morbidity including respiratory illness, cardiovascular illness and stroke, mental illness, and a risk in violence including genderbased violence and climate migration.

Everybody wants to end the climate crisis, but each country wants other countries to join the efforts, and share the economic costs. The aim of the climate conventions to negotiate national GHG mitigation. Over the years, the climate has conventions had minor achievements alongside major failures. The world is still breaking GHG emissions records every year. Over the years, the climate convention turned from a GHG mitigation negotiation to a huge event where 40,000 politicians, scientists, activists and also fossil fuel industry lobbyists (in 2022 more than 600 such lobbyists in the convention, a larger number than that of the US delegation led by President Biden).

The convention is an important event that generates networking and discourse, but is also highly criticized regarding the high emissions it creates, by flights from all over the world, food waste and disposable infrastructures built from scratch on the sands. The main criticism this year was from the Global South, which historically emits the least pollution but suffers the greatest climate extreme events and lack the resilience economic and infrastructure to cope with the climate crisis.

#### **Negotiating table- Climate Change Convention**



For the first time, Israel had a Pavilion at the convention, presenting Israeli innovation in cleantech, water, energy, agriculture etc. but was criticized for the fact that Israel does not yet have a climate action, commitment to reducing GHG, a national adaptation plan or budget to this end. In the Science Day at the convention. Israeli scientists presented their research, and our delegation from the University of Haifa presented research on the impacts of climate change on public health.

Personally, since the convention was in our "neighborhood" in the Middle East, I traveled by public transport to save the GHG of flights. I met worried scientists from all over the world, as well as representatives of indigenous people whose lives, habitats and cultures are already threatened by climate change. Egypt, that led the committee, managed to achieve a decision on a loss and damage fund for the Global South countries, who are damaged the most and have the least resources to cope, but the question of who much money will the countries of the world contribute to the Fund, and how it will be divided, remains open for discussion in the next convention in Abu Dabi in 2023. The Loss and Damage Fund was the main achievement of the convention, which failed again in agreeing on ambitious GHG mitigation. This is a worrying forecast for the future of us and our children.

From a public health perspective, climate policy improves public health, and we should all act to reduce flights and go on local holidays, move from private cars to public transport, reduce food waste, reduce meat consumption and switch to a diet rich with fruits and vegetables, plant-based proteins, reducing consumption, for example enjoying time together and shared experiences instead of buying plastic gifts and disposables, promoting tree planting, climate resilience and clean renewable energy.

#### Side Event & Exhibit - Climate Change Convention





# Sharing European Educational Experience in Public Health for Israel Project

#### Dr. Dana Ivancovsky-Wajcman

The School of Public Health at the University of Haifa has received the Erasmus+ European funding for a three-year joint project with Israeli and European Public Health schools. The program, entitled Sharing European Educational Experience in Public Health for Israel (SEEEPHI), aims to enhance the public health workforce in Israel through sharing European educational experience, including Harmonization, Employability, Leadership, and Outreach. The consortium is led by the Association of Schools of Public Health in the European Region (ASPHER) and eight Israeli and European hiah education institutes: Ben-Gurion University, the Hebrew University, University of Haifa, Ashkelon Academic College, Maastricht University (Netherlands), Cork University (Ireland), The Swedish Red Cross University (Sweden) and Jagiellonian University (Poland). The Israeli Association of Public Health Physicians is also a partner in the project.

The Haifa team includes Prof. Shira Zelber-Sgai, Prof. Orna Baron-Epel, Prof. Manfred Green, Dr. Maya Peled Raz, Dr. Dana Ivancovsky-Wajcman, and Yana Douvdevany.

The University of Haifa has been specifically teamed up with Jagiellonian University (Poland), for a joint project aimed at building an online platform for public health graduates stakeholders. The platform's and purpose is to provide information on jobs in public health in Israel, make job offers accessible to Israeli students and graduates, and enable officials in public health institutions to recruit employees. To tailor the platform to the needs of the graduates, we wanted to learn more about the following points: 1) how the alumni found their job placements 2) is there a gap in job finding that the platform can help overcome, and 3) did MPH studies help the alums find employment, improve and extend current competencies, or get a promotion?

To answer these questions, we conducted an alumni survey. The survey was sent by mail to 849 alumni who graduated with an MPH/Ph.D. in the last ten years. One hundred twenty-seven responded (14.9%). We found that a degree in MPH did not help much in finding employment or in changing employment rolls, most probably since they already are employed in relevant jobs when they start their degree.

# Sharing European Educational Experience in Public Health for Israel Project

In addition, students mostly find employment by independently applying to workplaces (40.0%) or get help from colleagues (26.7%) or friends (19.2%). However, 40% of students feel that the degree helped them get a promotion (in rank or salary) in their current workplace, and 50-60% feel that the degree helped them better contribute to their current workplace and perform their jobs better. Nineteen alumni agreed to participate in an in-depth interview. To date, four interviews have been completed.

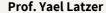
The internet platform is planned to go live at the Annual Conference of the Association of Public Health Physicians and Schools of Public Health to be held at the University of Haifa on June 11, 2023. Partners from the SEEEPHI project, both from Israel and abroad, will participate in the conference.



In the picture: a partner meeting that was held in Krakow, Poland, in September 2022.

# Selected Researchers at the School of Public Health







Prof. Anat Klomek-Burnstein



Dr. Inbal Globus

# The relationship between interpersonal functioning on the short and long term of bariatric surgery

Dr. Inbal Globus, Prof. Yael Latzer and Prof. Anat Klomek-Burnstein

Obesity is one of the most important health problems facing western countries and is an established risk factor for numerous diseases. Recent research has provided evidence that bariatric surgery is the most effective treatment for morbid obesity, resulting in significant weight loss and improvements in obesity related co-morbidities. However, a substantial number of patients experience poor weight loss outcomes and regain weight over time. Factors associated with long term bariatric surgery outcomes include demographic, physical, behavioral, emotional, psychiatric, socioeconomic and surgical factors. To the best of our knowledge, no published research to date has focused on the interpersonal functioning of bariatric candidates and the impact of interpersonal functioning on bariatric surgery outcomes.

#### Aims:

Two aims in our current study: 1. Assessing the differences in interpersonal functioning between bariatric candidates with disordered eating, bariatric candidates without disordered candidates eating, bariatric without disordered eating who decided not to undergo the surgery and individuals with normal weight. 2. Assessing interpersonal functioning, level of psychopathology, and eating disorders symptoms among bariatric patients before, one year, and three years following surgery bariatric and their relationship to excess weight loss.

#### Methods:

The study was divided into two sections: The first section was a case control study in which we analyzed 220 adult bariatric candidates from Maccabi Health Care and Assuta Medical Center. The bariatric candidates were divided into three groups: those with eating pathology (EP) (n=67), without EP (n=129) and a third group without EP who decided not to undergo the surgery (n=24). A control group comprised of 68 individuals with normal weight (without EP). Differences between emotional parameters (depression and anxiety) and interpersonal functioning were evaluated between all four groups.

In the second section we performed a prospective cohort study in which we followed all of the bariatric candidates who underwentsurgery. All of the parameters that were evaluated before the surgery were reevaluated a year and three years following the surgery and were compared to baseline. relationship to the amount of excess weight loss was evaluated as well.

#### Results:

Bariatric candidates with EP had higher prevalence depression and anxiety as well as higher levels of interpersonal problems. The group of bariatric candidates who ultimately decided not to undergo the surgery, showed higher levels of depression, anxiety and certain interpersonal problems (social and parental functioning, too caring, hard to be involved) compared both to the group who underwent the surgery and the control group. There were no significant differences in all measures between the groups that underwent surgery and the control group.

In the short term (a year following the surgery), the change in attachment anxiety between the baseline to a year after the surgery predicted poorer weight loss results. In the long term (three years following the surgery), over

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openness at baseline and the change in the ability to accept felling, the change in social functioning, the change in the ability to be involved with others and the change in attachment avoidance between one year after the surgery and three years predicted poorer weight loss results.

#### **Conclusion:**

Our findings strengthen previous studies. indicating high levels of psychopathology and interpersonal problems in bariatric candidates with eating pathology. These patients are also at higher risk for poor weight loos following bariatric surgery. In addition, bariatric candidates who decided not to undergo the surgery (and did not suffer from EP) displayed high levels of psychopathology and interpersonal problems. These results suggest a role for with intervention specific interpersonal therapy in both of populations. these Bariatric candidates who underwent the similar surgery had psychopathologies and interpersonal problems those with normal weight. This finding emphasizes the fact that interpersonal problems are linked to EP and not to BMI (Body Mass Index).

Perhaps interpersonal therapy (IPT), which has been found to be effective with patients with eating disorders, may have a role in improving those specific skills that are related to insufficient weiaht loss. potentially resulting in better preserving surgical outcomes in the short and long term. The recognition of specific interpersonal functioning that predict poor weight loss after bariatric surgery may help clinicians focus on those specific skills in order to improve outcome.

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The recognition of specific interpersonal functioning that predict poor weight loss after bariatric surgery may help clinicians focus on those specific skills in order to improve outcome.

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# Selected Researchers at the School of Public Health



**Nourit Houminer Klepar** 

# Biological aging and social interaction: The role of positive and negative social interactions in telomere length

Nourit Houminer Klepar, Supervised by Prof. Orna Baron-Epel and Dr. Shiran Bord

Social relationships are associated with physical and emotional health outcomes, nonetheless, the quality of social relationships in terms of its positive and negative aspects are of great importance as they may lead to opposite health outcomes. Studies demonstrate a link between positive social relationships and a longer life expectancy, as well as a link between negative social interactions and greater health related problems, a lower survival rate, and poorer reported health. During the postpartum period, mothers face various family and social interactions, which may impact their health, wellbeing, and rate of recovery after childbirth. A supportive and positive environment is associated with enhanced maternal health, nonetheless, despite social support's positive intent, it may create stress and be perceived negatively by mothers even though it is given with good intentions.

Telomeres, the protective "caps" at the end of chromosomes, shorten with each cell division, therefore, serve as biomarkers for cellular aging. Previous studies demonstrated that physiological and psychological stressors are associated with enhanced telomere shortening, therefore, telomere length can be used as a marker of chronic exposure to stress and biological aging. Nonetheless, health behaviors such as physical activity, yoga and meditation have been shown to slow the rate of telomere shortening and even lengthen telomeres.

Thus, the aim of this study was to examine the effect of positive and negative social interactions on telomere length first-time mothers among throughout the first year 103 postpartum. healthy, married, first time mothers who experienced normal pregnancy and childbirth to a healthy baby were recruited from Bnei Zion hospital and Mother and Child Health Centers (MCHC) operated by the Ministry of Health in the All Haifa district. mothers provided two dried blood spots to measure telomere length, collected shortly after birth and one-year afterwards as well as completed questionnaires social assessing their interactions.

results demonstrated Study that 70% of mothers' telomeres shortened remained or unchanged, whereas 30% of mothers' telomeres lengthened one year postpartum. Among mothers who reported high negative social relationships, likelihood of telomere lengthening was three times lower, compared to women who reported less or no negative social interactions. Of the three types of negative social interactions assessed conflicts insensitivity, and interference. statistical significance was found only for insensitivity.

Mothers who reported higher levels of insensitivity had a 2-fold lower likelihood of telomere lengthening.

Additionally, mothers who reported a higher level of marital satisfaction from their spouse had a 3-fold greater likelihood of telomere lengthening compared to mothers who reported lower marital satisfaction. summary, mothers who reported a higher level of marital satisfaction and a lower level, or no negative, social interactions had a three-fold higher likelihood of telomere lengthening.

As a result of the findings of this study, early postpartum screening tests can be adapted to identify positive and negative aspects of family and social support. As lack of positive family support, or the presence of negative family and social interactions, can lead to short and long-term negative health consequences for the mother. The findings of this study may guide professionals and provide them with additional tools for diagnosing postpartum mothers, which will include an assessment of their family and social relationships. In addition, these findings can guide and encourage mothers to tailor social support to their needs to and facilitate their ease postpartum recovery.

66

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# Selected Researchers at the School of Public Health



**Sharon Levi** 

# Active travel, physical activity, screentime and social media use among Israeli adolescents: A mixed methods approach

Sharon Levi, Supervised by Prof. Orna Baron-Epel

Physical activity (PA) is a key component for health and wellbeing, however, most adolescents are not meeting PA recommendations. Active travel (AT) incorporates PA in daily life with individual and societal benefits. Screens and social media platforms (SMP) are an integral part of adolescent experience. Understanding the relationship between PA, AT, screen and SMP behaviors may serve as a basis for interventions to encourage active lifestyle.

#### **Objective**

This mixed methods study examines the relationship between PA, AT, screen and SMP use among adolescents.

#### Methods

We used an exploratory sequential mixed methods research design. In Phase 1 semi-structured interviews were conducted with 25 adolescent-parent dyads. Thematic content analysis informed development of a quantitative data collection instrument. In Phase 2 we conducted a cross-sectional survey on AT and PA with adolescents age 13-17 years (N=2911), in a nationally representative sample of schools representing different levels of urbanicity. Integrative analysis includes findings from inferential statistics and regression analyses in a joint display.



Understanding the relationship between PA, AT, screen and SMP behaviors may serve as a basis for interventions to encourage active lifestyle.



#### Results

One central theme identified in Phase 1 is 'peers and SMP promote adolescent AT and PA'. Adolescents indicated AT and PA with peers is a social activity, an opportunity for personal time without screens. Simultaneously, SMP are utilized to promote AT and PA. Phase 2 we included measures of AT, PA, screentime and SMP use; as well as novel questions on exposure and promotion of PA and AT in SMP.

Overall, 38% of adolescents report daily AT to and from school, 46% report daily leisure AT, and 20% report that they participate in 60 minutes or more daily PA. Different AT and PA behaviors are positively associated with one another. Among SMP users, 22% report that invitations to participate in PA via SMP, encourage them to participate in PA and 12% report likewise for AT. Positive effects of SMP for PA is correlated with days of 60 PA minutes (r=.309, p < .001). Positive effects were also found for SMP related to AT behaviors.

A weighted regression model for stratified cluster samples for dependent variable All Active Travel (AAT) has r2= .121 and Wald F= 32.73 (df=7, p<.001). AAT has a positive association with several measures (df=13);

social norms of peers walking (t=5.48, p<.001), positive effects of SMP for AT (t=6.70, p<.001), membership in SMP peer groups that relate to PA (t=3.65, p<.01); also, with male gender (t=5.79, p<.001), and high level of urbanicity (t=2.39, p<.05).

#### **Conclusions and Implications**

Mixed methods approach offered an opportunity for indepth study of PA, AT, screen and SMP use among adolescents. We find that SMP has potential to encourage active travel and physical activity for some adolescents, employing SMP to encourage PA and AT as well as an emphasis on opportunities for peer-to-peer communication during AT and PA have the potential to support efforts to promote an active lifestyle.

Construct	Qualitative Finding	Quantitative Finding				
Social media platforms are utilized to promote active travel and physical activity.	We have a WhatsApp group it happens a lot, when we want to go [on our bikes] to the courts and play, we invite everyone. We are a very tight group	DOES SOCIAL MEDIA PROMOTE PHYSICAL ACTIVITY Weighted Percent				
		25.3	21.4	31.7	14.5	7.1
		Never	Rarely	Sometimes	Usually	Always
		Positive effects of social media platforms for physical activity is correlate with days of 60 minutes of physical activity (r=.309, p < .001)				

#### Dr. Roni Elran-Barak

Elran-Barak, R., Baron-Epel, O., & Donchin, M. (2022). Neighborhood violence and health: the mediating role of loneliness among two ethnic groups in Israel. Health promotion international, daac028. Advance online publication. https://doi.org/10.1093/heapro/daac028

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#### **Dr. Yonah Amster**

Amster, Y., et al. (2022). "Healthy and Safe Telework: Technical Brief". World Health Organization Publication. https://doi.org/10.1016/j.shaw.2021.12.1700

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### **Recent and active Grants:**

Amster, Y. & Fireman, L (co-PI). The use of bio-monitoring to assess and protect workers exposed to nano-scale materials. Funded by Israeli Ministry of Science and Technology.

### Prof. Orna Baron-Epel

Myers, V., Malkin, G., Nir, N., Orr, D., Baron-Epel, O. (2022). Evaluation of an intervention to reduce child injury in Bedouin communities in Southern Israel. Injury Prevention. 28(1);38-42.

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## Prof. Orna Baron-Epel (continue)

#### **Recent and active Grants:**

**Baron Epel O.**, Levin Dian, Neter Efrat, from Israel and Shwu-Huey Yang, Peter Wushou Chang, Tuyen Van Duong from Taiwan "Use of digital healthcare services in older adults in Taiwan and Israel: Characteristics and implications" Taiwan-Israel joint research cooperation. Funded by Ministry of Science and Technology.

**Baron Epel O.**, A. Aviv, and A. Shmuelov. Testing the feasibility of a home-based treatment model for hemato-oncology patients as an extension of hospital-based care. Funded by The National Institute for Health Policy Research.

# Dr. Yaron Denekamp

Dixon, B. (Ed.). (2022). Health Information Exchange Navigating and Managing a Network of Health Information Systems, 2nd edition. Elsevier.

### **Prof. Ronit Endevelt**

Magnazi, M., Sartena, G., Goldberg, M., Zimmerman, D., Ofir, E., Baruch, R., & Endevelt, R. (2022). Impact of the COVID-19 Pandemic on Breastfeeding in Israel A Cross-Sectional, Observational Study. https://doi.org/10.21203/rs.3.rs-1101173/v1

## **Prof. Anat Gesser-Edelsburg**

Essa-Hadad, J., Abed Elhadi Shahbari, N., Roth, D., Gesser-Edelsburg, A. (2022). The impact of Muslim and Christian religious leaders responding to COVID-19 in Israel. Frontiers in Public Health. Vol. 10:1061072

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## Prof. Anat Gesser-Edelsburg (continue)

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Bitton Cohen, R., Gesser-Edelsburg, A. Promoting health in Israel in the light of sustainable development goals (SDGs) - where are we and where are we headed? Funded by The Faculty of Social Welfare & Health Sciences Research Fund, University of Haifa.

# Publications at the School of Public Health - 2022 Dr. Pavel Goldstein

Ruimi, L., Amir, I., Hadash, Y., **Goldstein, P.**, Dar, O., & Bernstein, A. (2022). Meta-Awareness and Control of Internal Attention: a Simulated Thoughts Paradigm Investigation. Mindfulness, 1-13. https://doi.org/10.1007/s12671-022-02027-x

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#### **Recent and active Grants:**

Goldstein, P (PI). Ecological validation of psychotherapy for chronic pain: specifying the mechanisms. ISF personal grant.

Goldstein, P (PI). Investigating chronic pain mechanisms. ISF.

#### **Prof. Manfred Green**

Lazarus, J. V., Romero, D., Kopka, C. J., Karim, S. A., Abu-Raddad, L. J., Almeida, G., Baptista-Leite, R., Barocas, J. A., Barreto, M. L., Bar-Yam, Y., Bassat, Q., Batista, C., Bazilian, M., Chiou, S. T., Del Rio, C., Dore, G. J., Gao, G. F., Gostin, L. O., Hellard, M., Jimenez, J. L., ... COVID-19 Consensus Statement Panel (2022). A multinational Delphi consensus to end the COVID-19 public health threat. Nature, 611(7935), 332–345. https://doi.org/10.1038/s41586-022-05398-2

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# Prof. Lital Keinan-Boker (continue)

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#### Dr. Geffen Kleinstern

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# **Prof. Stephen Levine**

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#### **Prof. Diane Levin-Zamir**

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#### Dr. Mika Moran

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## Dr. Maya Negev

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#### **Recent and active Grants:**

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#### Dr. Yuval Nov

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## Dr. Adv. Maya Peled-Raz

Bashkin, O., Otok, R., Leighton, L., Czabanowska, K., Barach, P., Davidovitch, N., Dopelt, K., Duplaga, M., Okenwa Emegwa, L., MacLeod, F., Neumark, Y., **Peled Raz, M.**, Tulchinsky, T., and Mor, Z. (2022) Emerging lessons from the COVID-19 pandemic about the decisive competencies needed for the public health workforce: A qualitative study. Front. Public Health, 10: 990353. https://doi.org/10.3389/fpubh.2022.990353

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#### **Prof. Lisa Rubin**

Rudolf, M. C. J., Bord, S., Hasson, R., Sahar, Y., Rubin, L., Manor, N., Paldi, Y., & Baron-Epel, O. (2022). Between-country analysis of implementing an obesity prevention intervention using RE-AIM: HENRY in Israel and UK. Health promotion international, 37(2), daab119. https://doi.org/10.1093/heapro/daab119

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#### **Prof. Sharon Sznitman**

Greene, T., **Sznitman**, **S.**, Contractor, A. A., Prakash, K., Fried, E. I., & Gelkopf, M. (2022). The memory-experience gap for PTSD symptoms: The correspondence between experience sampling and past month retrospective reports of traumatic stress symptoms. Psychiatry Research, 307, 114315. https://doi.org/10.1016/j.psychres.2021.114315

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**Sznitman**, S.R., & Lewis, N. (Co-PI). Developing and testing media campaign messages to reduce the risk of cannabis-impaired driving. Funded by Israeli Insurance Funds.

**Sznitman**, **S.R.**, Riordan, B., Kuntsche, E., He, Z., & Gray, R. (Co-PIs). Using Artificial Intelligence to determine how much alcohol influencers from Australia and Israel post on social media – Part 1 of 'Enhancing wellbeing and social inclusion of marginalised populations: a two country multi component project'. Funded by Veski Study Melbourne Research Partnerships.

#### **Prof. Galit Weinstein**

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#### **Recent and active Grants:**

**Zelber-Sagi**, S (PI) & Tirosh, O. (co-PI). Novel Processed Food Compounds Leading to Metabolic Alterations and Liver Damage: Evaluation in mouse models and humans. Funded by Chief Scientist Office, Ministry of Health.

Zelber-Sagi, S (PI) & Tirosh, O. (co-PI). The possible protective association of milk fat consumption with oxidative stress, pro-inflammatory, metabolites and NAFLD. Funded by Chief Scientist Office, Ministry of Health.

**Zelber-Sagi**, **S** (co-PI) & Gepner, Y. (co-PI). The effects of time-restricted eating and exercise training on cardio-metabolic health, liver fat and body composition. Funded by ISF Personal Research Grants.