Dear Faculty Members and Students,

I am grateful for the opportunity to present you with the Book of Abstracts of the Faculty of Social Welfare and Health Sciences’ 6th Research Fair.

In the face of the many challenges that have confronted academic institutions this year, we have remained committed to our threefold mission of education, innovative research, and exceptional professional training.

The abstracts gathered in this book reflect the wide and exceptional research conducted by our faculty members and students.

Guided by curiosity, critical analysis, strict methodologies and social concern, members of our Faculty have succeeded to continue with our tradition of excellence and distinction.

I wish all the participants an interesting and fruitful day, as well as further success in their professional and academic activities.

Sincerely,

Perla Werner, Ph.D.
Dean

-I-
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Factors Influencing Varicella Vaccine uptake among children
1-17 years old in Haifa District, 2007
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University of Haifa, Faculty of Social Welfare & Health Sciences, School of
Public Health and Haifa District Health Office

Background and Aim: The varicella vaccine is safe and effective. The Israeli Ministry of Health has recommended its use since 2001. However, until September 2008 it has not been included in routine free-of-charge vaccinations given in the Family Health Centers (Tipat Halav). The aim of this project was to study varicella vaccine uptake and determinants of vaccine uptake in children 1-17 years of age in the Haifa District.

Methodology of Research Project: This study was conducted among parents of children ages 1-5 years old who attended 82 out of the 86 Family Health Centers operated by the Ministry of Health in the Haifa District, during one week in November 2007. The study population surveyed 1,927 parents of children 1-5 years old, with an 85.6% response rate. The anonymous self-administered questionnaire was related to all their children 1-17 years of age.

Findings: The study found that 35.2% of parents vaccinated at least one child with the varicella vaccine: 46.4% of the Jews and 18.3% of the Arabs. Multiple logistic regression analysis found that vaccine uptake rates were higher among Jews than among Arabs, in Haifa than in the Hadera subdistrict, among children to parents with higher education and supplementary insurance and when a physician or nurse recommendation to vaccinate children was given. No statistically significance association was demonstrated between uptake and the price of the vaccine and the Health Insurance Company.

Conclusions: New strategies are needed, both in the private sector and in the Ministry of Health, to market the varicella vaccine. The target populations should focus on the Arab population, people with low education, and the Hadera sub-district. Additionally, physicians, Family Health Centers, and the internet should be utilized with Hebrew and Arabic language resources to reach parents with unvaccinated children.

Key Words: Vaccine uptake; varicella; children; Arab population.
Background: Every year there are about 140,000 live births in Israel. Of those, approximately 3500 are infants with congenital malformations (CM); in addition there are about 250 medically–induced late abortions and 50 stillbirths due to congenital malformations. CM impose a heavy burden on families and society including direct and indirect costs. Changes in the Secondary Sex Ratio (SSR-male to female ratio at birth) over time can be an indicator of stressors acting on the reproductive system.

Objective: To evaluate time trends of CM rates and SSR in a period of 7 years within different sub-populations.

Methods: Ecological time series study including all Israeli births (live and stillbirths) during 2000-2006. Data Sources: Ministry of Health. Poisson non-linear models (polynomial) were applied to study the time effects (month, season, years) on SSR value and 3 types of counts: all CM types, all non-chromosomal CM, CM associated with environmental exposures. The covariates were parental and infants’ characteristics: religion, nationality, education, and age.

Results and discussion: A new categorization of CM has been developed. Trends in CM rates and SSR differed between Jewish and Arab populations. The changes in CM rate can be explained by genetics and exposures to environmental risk factors such as air pollution. Changes in SSR can be explained mostly by environmental exposures and can be used as an indicator to such exposures.

Key words: Time-series, Congenital Malformation/birth defects, Secondary Sex Ratio, Adverse Pregnancy Outcomes, environmental health and epidemiology, CM incidence.
The Influence Of Chemotherapy Elevs Of Antibodies Against 4 Vaccine-Preventable Diseases Included In The Routine Vaccination Program

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Introduction: Chemotherapy and malignancy may have deleterious effect on immune status of previously vaccinated children. The need for re-vaccination after cancer treatment is not clear.

Aims of the study: To measure the dynamics of antibodies against 4-vaccine preventable diseases before, during and after treatment of solid tumors and leukemia.

Patients and Methods: Newly diagnosed patients (July, 2004- Dec, 2005) were included. Patients having bone marrow transplantation, second malignancy, primary immunodeficiency or < 6 months of age were excluded. Sera were collected before institution of chemotherapy and every 3 months, up to 6 months post treatment. IgG levels of Measles; Mumps, Rubella and Hepatitis A (HAV) were evaluated. Commercial micro-particle enzyme immunoassay was used. IgG levels of 1.15, 1.15, 31, >10 IU/ml for Measles, Mumps, Rubella, HAV respectively, were considered protective. Collected data included demographics, type and stage of cancer, grade of chemotherapy and number and time since previous vaccinations.

Results: 82 patients were admitted, 70 (43 males) completed the study, (7 deaths, 5 had 1 sample). Mean age was 9±6 years. Primary diagnosis included leukemia (N=22), lymphoma (N=22), Sarcoma (N=16), neuroblastoma (N=4), others (6). 47 (67%) were treated with chemotherapy alone, 33 with chemotherapy and radiotherapy. 95% of patients were previously given MMR. 15 / 20 patients < 5 years and 16 / 50 >5 years had at least 1 dose of HAV vaccine.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Pretreatment</th>
<th>End of Treatment</th>
<th>6 months post-treatment</th>
<th>P value (t test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>3.3±1.3</td>
<td>3.3±2.4</td>
<td>2.4±2.7</td>
<td>0.47</td>
</tr>
<tr>
<td>Mumps</td>
<td>1.6±1.3</td>
<td>1.5±1.7</td>
<td>1.3±1.4</td>
<td>0.37</td>
</tr>
<tr>
<td>Rubella</td>
<td>69.4±69.4</td>
<td>49.7±56</td>
<td>20.7±27.5</td>
<td>0.08</td>
</tr>
<tr>
<td>HAV</td>
<td>64±61</td>
<td>--</td>
<td>90±73</td>
<td>0.1</td>
</tr>
</tbody>
</table>

The results were the same according to all demographic and clinical variables.

Conclusions: Chemotherapy did not affect significantly IgG for previously vaccinated children. Patients who were vaccinated for MMR and HAV do not need additional vaccination following treatment for cancer.
Can subjective and objective socioeconomic status explain minority health disparities in Israel
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Background and aims: Disparities in health exist between the three main population groups in Israel, non-immigrant Jews, immigrants from the former Soviet Union (arriving in Israel since 1990) and Arabs. This study examines the relationship between health and socioeconomic status in this multicultural population and assesses to what extent subjective and objective socioeconomic measures may explain the disparities in health.

Methods: A random cross-sectional telephone survey of 1,004 Israelis aged 35-65 was performed. The questionnaire measured physical and mental health-related quality of life using the Short Form 12. Information regarding subjective socioeconomic status (SSS) and objective socioeconomic status (SES) was collected.

Results: Arabs and immigrant women from the former Soviet Union had worse physical health compared to non-immigrant Jews. Immigrant and Arab men and women had worse mental health compared to non-immigrant Jews. Multivariable logistic regression analysis adjusting for SSS or SES explained the disparities in physical health between Arab and non-immigrant Jewish men. However, SSS and SES did not explain the disparities in physical health between the three groups of women. The disparities in mental health between immigrant and non-immigrant Jews can be explained by SSS for both men and women, whereas the disparities between Arabs and Jews can be explained by objective SES only among women. Employed men reported better physical and mental health.

Conclusions: Part of the disparities in mental health in Israel can be attributed to differences in SSS and SES in the different groups. However, there is a need to identify additional factors that may add to the disparities in both physical and mental health. The disparities due to socioeconomic status vary by health measure and population group.

Key words: Socioeconomic status, mental and physical health, Arabs, Jews.
The St John Eye Hospital: A Bridge for Peace

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Purpose: To examine how the St John Eye Hospital of East Jerusalem is functioning as a bridge for peace in a world at war.

Background: Located in Sheikh Jarrah, an Arab neighborhood (the political status of which is hotly contested), the hospital serves as the main center for specialized eye care in the West Bank, Gaza, and East Jerusalem. Serious eye diseases are common among Palestinians, who suffer from rates of blindness 10 times greater than that of Western Europeans and North Americans.

Methods: Historical research was the method for reconstructing events in the past. We used MEDLINE and computer literature searches.

Results & Conclusions: St John traces its origins to the first crusade of the 11th century, when the Order of St John was formed to look after pilgrims to the Holy Land. The eye hospital was opened in 1882, and was then located in Ottoman Jerusalem.

St John is the only public hospital in the region specializing in ophthalmology. It has a cooperation agreement with the Hadassah Medical Center in Israel; several Palestinian doctors are currently studying to take the Israeli Board of Ophthalmology exam.

Called “Peace in Sight,” this program of the Peres Center for Peace is supported and partially funded by the US State Department. In general, Palestinian doctors work in isolation, having very few opportunities for residency programs in advanced medical centers, so these initiatives offering specialized training are both rare and important.

St John’s research program, “Vision 2020: The Right to Sight,” includes a major epidemiological study to determine the prevalence of total and preventable adult blindness in the Palestinian territories.

Key words: public hospitals, Health Services Accessibility, Health Services Needs and Demand.
Selecting patients for hyperbaric oxygenation using TcPO2 measurements
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Background: Hyperbaric oxygenation (HBO) has been demonstrated to be an effective adjunctive treatment in the healing of problem wounds. Evidence of the predictive value of Transcutaneous PO2 (TcPO2) in wound healing makes it an important tool in the selection of patients for this treatment. Nevertheless, TcPO2 values which were determined predictive of healing, lack consistency.

Aims: To estimate the optimal cut off points for TcPO2 values (at 2-2.4 ATA), predicting treatment's outcome at study population and selected groups based on presence/absence of diabetes and smoking status.

Methods: A historical prospective cohort study was carried out using 385 medical records of patients treated for ischemic non-healing wounds at lower extremities at the Rambam and Elisha Hospitals’ Hyperbaric Center (treatments started on 1/1/1998-1/1/2007 and ended before 1/3/2007). ROC curves were used to determine the optimal cut-off point of TcPO2.

Results: The statistically significant optimal cut-off points were 346 mmHg in the entire study population, and 352 mmHg in the diabetics. The cut-off points in non diabetics, smoking and non smoking patients were not statistically significant.

Conclusions: We recommend using the TcPO2 cut-off point of 346 mmHg in selecting patients for the treatment. The use of this cut-off point should serve a second priority over the reported optimal model predicting treatment's outcome. The optimal model and the cut-off point should be used as a supplement to clinical considerations. In addition, the meaning of false negative and false positive rates should be taken into consideration.

Keywords: Hyperbaric oxygenation, Transcutaneous PO2, Wounds, Healing.
Folic Acid Usage among Arab Women In Israel
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Background: Congenital Malformations are a cause of Mortality, Morbidity, and care expenditures. A life threatening congenital malformation is Neural Tube defects (NTDs). Intake of Folic Acid before pregnancy and during early pregnancy has been proven effective in reducing the incidence of NTDs by 50%-70%, and prevents occurrence of these malformation. Prevention and reduction of NTDs is an important target for public health. There are many factors associated with folic acid intake such as, knowledge, awareness, ethnicity, race, education, pregnancy planning, socio-economic status, and religiosity. The Arab community in Israel is an ethnic minority characterized by a large number of children, low income, low education levels, high parental consanguinity. All of these may serve as risk factors, which affect the burden of disease.

Objectives: 1. To study the factors that are associated with the intake of folic acid among Arab women in Israel. 2. To assess intake of folic acid among Arab women and the association with: socio-economic status, education, age, religiosity, and pregnancy planning.

Methods: We carried out a cross-sectional survey of 335 postnatal Arab women in three hospitals in Nazareth city in north of Israel. The ages of the women were between 18 and 45. The data collection was performed by a face to face interview.

Results: The prevalence of folic acid intake in the preconception period was 14.8%, and 40% during conception period. High intake of folic acid was associated with high knowledge levels, medical staff recommendation, and public health nurses recommendation. In addition, if women heard about folic acid from friends, neighbors, family the intake increased. Knowledge about the purpose of its intake, planned pregnancies, and non-religiosity increased the chances of intake.

Conclusion: The low prevalence of folic acid intake among Arab women in Israel is a problem. There is a need to implement interventions using all strategies simultaneously, and involving all relevant population and sectors, to increase the prevalence of folic acid intake.
Life prevalence of chronic upper respiratory tract diseases and asthma among children residing in rural area near a regional industrial park: cross-sectional study

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Introduction: The objective of this study was to investigate the link between the regional industrial park (IP) nearness and the life prevalence (LP) of upper respiratory tract chronic diseases (URTCD) and asthma in children 0-14 years in Negev's agricultural localities, Southern Israel.

Methods: The cross-sectional study was conducted in seven localities during 2002 year. We used the three indirect exposure indicators: 1) the distance (less-than-20km/more-than-20km) from the IP, 2) the presence (yes/no) of the dominant wind direction from the IP toward a locality, 3) the mother's odour complaints (yes/no) related to the IP. The study population consisted of 550 children born in the localities. Medical diagnoses were collected from the local clinic records. The following parts were included in the questionnaire: 1) demography, 2) the child’s birth and breast feeding history, 3) the parental respiratory health, 4) parental smoking and occupational exposure, odour related to the IP emissions. For statistical analysis multivariate logistic regressions with adjusted odds ratios (OR) within 95% confidence interval were used.

Results: The multivariate analysis shows that the increased LP of URTCD in proximal localities is significantly associated with odour complaints (OR=3.76, [1.16, 12.23]). The following factors related to increasing of the LP of URTCD: 1) father's lower education (by distance: OR=2.62, [1.23, 5.57]; by wind direction: OR= 4.07, [1.65, 10.03]); 2) in-vitro fertilization (by distance: OR= 3.03, [1.17, 7.87]; by wind direction: OR=4.34, [1.48, 12.72]). In the proximal localities, the increase in asthma LP is associated with: 1) wind direction (OR=1.95, [1.01, 3.76]); 2) the child’s male gender (OR=2.95, [1.48, 5.87]); 3) the child mother’s acute infectious diseases during the pregnancy (OR= 4.84, [1.33, 17.63].)

Conclusions: We found that the increased LP of children chronic respiratory morbidity is associated with the indirect measurements of exposure to the IP emissions. These results were similar to our previously findings.

Key words: upper respiratory tract, asthma, children, rural area, industrial park, exposure indicators.
The association between religiosity and eating disorder symptomatology among Jewish adolescent’s girls

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Objectives: This study examined the association between eating disorder (ED) symptomatology and religious observance, beliefs and coping.

Method: Data were collected from 73 Orthodox Jewish female high school seniors. Religious observance (actions) and beliefs were evaluated using the JewBALE, a scale devised to measure adherence to Jewish religious practices, as well as agreement with a traditional Jewish value system. Religious coping was evaluated using the Brief RCOPE, developed to measure whether religion is used positively or negatively during stressful periods. ED symptomatology was assessed using the EDE-Q and the bulimia and drive for thinness subscales of the EDI-1.

Results: Religious actions and beliefs were not associated with ED symptomatology on any of the ED measures. Additionally, there was no relationship observed between positive religious coping and ED symptoms. Negative religious coping was significantly correlated with scores on the EDE-Q (r = .27, p < .05), the EDI bulimia subscale (r = .28, p < .05) and marginally correlated with the EDI drive for thinness subscale (r = .21, p = .08). Therefore those individuals that experienced religion as being negative and harsh during times of stress had higher levels of ED symptoms.

Discussion: Previous findings on the relationship between religion and EDs have been inconclusive with some finding protective effects of religion and others finding no effect. Our study further elucidates the complex relationship between religion and EDs by demonstrating that it is not religious actions and beliefs per se, but the use of religion in a negative way during times of stress that may put one at risk for the development of eating disorders. Future studies that examine these findings longitudinally, as well as other aspects of individuals’ religious experiences, are needed to clarify the relationship between religion and EDs.
Breastfeeding Knowledge, Attitudes & Supporting Behaviour Among Nurses Working in Tipat Halav Clinics

By: Efrat Lev Amitay; Dr. Orna Baron-Epel & Dr. Lisa Rubin

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**Background**: Health organizations worldwide recommend breast milk as the optimal nourishment needed to achieve optimal growth, development and health for infants. Economic, family and environmental benefits have also been demonstrated. In Israel, the Tipat-Halav staff is responsible for providing breastfeeding assistance. Often there is a gap between official policy and the ability of the nursing staff to assist breastfeeding moms.

**Objectives**: To examine breastfeeding knowledge, attitudes & supporting behaviour of public health nurses in Tipat Halav vis-à-vis the Health Ministry's breastfeeding recommendations.

**Methods**: A self-administered questionnaire was distributed to nurses in Tipat-Halav clinics run by the Ministry of Health and the Clalit Health Services.

**Results**: Measures of knowledge (average score 75%), attitude (3.48/4), and supporting behavior (3.26/4) were better than findings in similar studies from other countries. Partial association was found between breastfeeding knowledge and attitude and support behavior. However knowledge of management of practical breastfeeding problems was less than theoretical knowledge. Nurses with personal breastfeeding experience and who considered it a positive experience were more knowledgeable in practical breastfeeding problems. Attitudes towards breastfeeding and support offered to breastfeeding mothers are influenced by the type of breastfeeding information resources available. Relationship between the nurses and community breastfeeding support organizations were found to be lacking.

**Conclusions**: The association found between knowledge and support behavior, as well as the gaps demonstrated in practical breastfeeding knowledge suggest that efforts be made to enhance current, evidence-based knowledge in staff. Strengthening professional attitudes and nurses’ role in promoting and supporting breastfeeding as well as relations with community organizations should be encouraged.

**Key words**: breastfeeding, knowledge, attitudes, nurses, public health.
Playing it safe: Environmental and Behavioral Factors Related to the Safety of Active Recreation among Children

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Background: Active living is associated with safe environments, which are also associated with safe pedestrian behavior. Safety aspects are especially important in the context of children’s active recreation in urban environments generally referred to as 'street games'. This study examined the safety of street games in light of the socio-ecological perspective in Arab communities in Israel.

Objectives: 1. To describe environmental and behavioral characteristics of street games in Arab communities; and 2. To analyze environmental and behavioral factors that might be related to street games safety in Arab communities.

Methods: A cross-sectional observation survey was conducted in 15 Arab settlements in northern Israel. Observations were held for 3 days in each settlement. Observers were provided with palm-top computers containing a check-list of measures which they filled in selected locations. Observational measures included: (1) ‘street games safety’ (including child risky behaviors), ‘infrastructure’ (quality and maintenance of: sidewalks, traffic signs and pedestrian-crossing), and ‘pedestrian road crossing behavior’.

Results: In all settlement types, streets were the most common location of the outdoors playing (58%-69%), and playing near traffic was quite common (34-42%). In Arab cities the highest quality of infrastructure was observed, and street games were relatively safe. Correspondingly, child pedestrian exposure and child risky behavior were lowest in Arab cities. In settlements with better infrastructure children were less exposed to traffic while playing ($r_s=-0.74$, $p<0.002$). Also, in settlements with safer pedestrian's behavior, children demonstrated less risky behaviors ($r_s=-0.52$, $p=0.045$). (Blank)

Conclusions: Street games in Arab communities occur in various dangerous environments and put children at high risk of injury. Hence, safety issues must be addressed in order to enable street games to continue safely.
The Relationship between Parental Health Beliefs and Car Safety Seat Use among Israeli Arab Children
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Background: In Israel, motor vehicle injuries are the leading cause of mortality among children. For Arab children aged 8 and younger, mortality rates from motor vehicle crashes are 2 times higher than the mortality rate among the Jewish population. The use of child safety seats has been proven to reduce child injury and death by 71% for infants and by 54% for toddlers. Arab children are still inappropriately restrained or completely unrestrained. Parental health beliefs may affect child safety seat use among Israeli Arab children.

Objectives: To examine the relationship between parental health beliefs and car safety seat use among Israeli Arab children.

Methods: A cross-sectional observational study was conducted on child safety seat use in 8 settles in Nazareth district. Health beliefs were examined through interviewing the driver.

Results: 835 children were observed. 47% were unrestrained. Proper restraint ranged from 64% among infant seat-eligible children to 9% among booster seat-eligible children and was associated with barriers perception and fatalism (O.R = 0.397; 95% C.I= 0.284-3.556).

Fatalism and external locus of control were the most predicting variables for car safety seat use.

Conclusions: High levels of fatalism “if it is the time to die, the child will die, so it doesn’t matter whether he sits in car safety seat” may inhibit Arab parents from restraining their children in safety seats. Interventions to decrease fatalism in Arab parents may increase child safety seat use and could minimize the risk of injury or death among children who are involved in road accident.

Key Words: Car safety seat use, fatalism, health beliefs, barriers, Arabs, Israel.
Voters and Health Care in the 2009 General Elections in Israel
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Background: Several surveys in the United States have shown that health care is one of the most important issues in voting behavior. In Israel, voters' attitudes toward health care issues and the importance of health care in voting behavior is not known.

Aims: To evaluate the role of health in Israeli voters' choices

Methods: A telephone survey of a random sample of adults, older than 18 years, was conducted during the period of January 27-29, 2009, immediately prior to the general elections. Stratified sampling was used and complete interviews were obtained on 800 people. The sample size was able to yield maximum 95% confidence intervals of measures expressed as percentages + 3.46% (sampling error).

Results: 37.7% of Israel population believes that the Israeli health care system as good as in other developed countries all over the world. 13.1% believe that the Israeli health care system in less good then in other developed countries, and 22.4% believe that the Israeli health care system is better then health care systems in other developed countries. 44% ranked the health care system as one of the three most significant issues affecting their voting behavior. 49% believe that there is no difference between the different candidates for prime minister in their attitudes toward the health care system and 39% believe that the "Knesset" members put the health care issues in low priority. In addition, 66% believe that the current government invests too little in the health care system.

Conclusions: There is a major gap between the significance of health issues to the public, and public knowledge about the different political parties to this area. Paradoxically, although voters place great importance on health as an election issue, they cannot distinguish between the different parties on this subject.

Key Words: health care system, voting behavior.
Measuring exposure to caloric restriction and Post Traumatic Stress Disorder related to WWII among WWII female survivors in Israel – A Pilot study

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Background: World War II (WWII) survivors in Israel were exposed to severe famine and mental stress during WWII and are at a higher risk for cancer compared to the general population. A case control study is now planned to explore the association between caloric restriction and WWII-related post traumatic stress disorder (PTSD) on breast cancer. The assessment of hunger exposure during WWII seems a great challenge due to the variance of the exposure and its duration. Likewise, no valid study tools are available regarding the impact of WWII-related PTSD.

Aims of the pilot study: to examine the validity of newly developed research tools for assessing the exposure to caloric restriction during WWII and the existence of WWII-related PTSD.

Methods: The pilot study population included Israeli women born in Europe in 1926-1945 who experienced WWII there. The cases were primary incident breast cancer patients diagnosed in the Rambam medical center. Controls were population-based. Each participant underwent a face-to-face interview using a detailed questionnaire, which collected information on the different staying locations during WWII. Exposure to caloric restriction during the war was assessed by the different locations reported and the amount of time spent in each location. Direct questions were asked on hunger symptoms as well as personal perception of hunger level in each of these locations. WWII-related PTSD was measured through a PTSD validated questionnaire, emphasizing WWII-related symptoms.

Results: 9 breast cancer patients and 34 controls participated in the pilot study, with a total response rate of 78%. The objective hunger index, based on staying locations, was higher in the cases compared to the controls (mean score 141.06 vs. 130.07, respectively). The perceived hunger level was higher in the cases compared to the controls (mean score 2.75 vs. 2.40). Reported hunger symptoms were more frequent in the cases compared to the controls (4.89 vs. 3.56). As for WWII-related PTSD, breast cancer cases reported more frequently on specific PTSD symptoms compared to the controls.

Conclusions: The novel research tools are appropriate for the assessment of hunger exposure and WWII-related PTSD.

Key words: breast cancer, World War II, caloric restriction, PTSD, Jews.
Introduction: Work Ability Index (WAI) questionnaire was developed in Finland over 20 years ago for the evaluation of work ability in various groups of workers.

Objectives: To estimate the relation between WAI and certain illnesses as reported by Israeli nurses.

Methods: A cross-sectional study was conducted during 2006-2007, on 515 nurses (87.3% women nurses) in two general hospitals, after validating the Hebrew version of the questionnaire.

Results: Mean score of WAI in this group was 41.9±5.1 (range 26-49): it was 41.8±5.2 in women and 42.3±4.3 in men (p=0.35). Mean age of female was 41.4±9.8 and that of men nurses 38.7±8.7; p=0.05. More than 50% of the interviewees reported at least one chronic disease. WAI score was negatively correlated with diagnoses (as made by physicians) (r=-0.650, p<0.001). Of the nurses with at least one medical problem, 22.5% (60/266) reported suffering from one health problem and 29.1% (77/266) reported having 2 or more health problems. The most frequent reported diagnoses were of musculoskeletal disorders, 25% (129/515), and of endocrine or metabolic diseases 12.4% (64/515). The diagnosis of cardiovascular diseases was made in 11.8% (61/515) of the participants. A significant correlation was found between diagnosis of musculoskeletal disorders and age (p<0.001). Reported illnesses were not correlated with sex (p=0.471) or job level (p=0.099). Relation between WAI (4 categories – poor, moderate, good and excellent) and illness (yes vs. no) was found to be significant in two age groups (older than and younger than 40), p<0.001.

Conclusions: Mean WAI score found in Israeli nurses is relatively high as compared with that of European nurses. Nurses with at least one reported diagnosis are significantly older than nurses with no diagnoses. The frequency of “good” and “excellent” WAI score is correlated with the presence of reported illness but not with other demographic characteristics.

Key words: Work Ability Index (WAI), nurses, cross-sectional study, occupational health.
Discriminative indicators expressed in the DAP test among individuals who were diagnosed with schizophrenia
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Background and Purpose: This study strived to empirically establish indicators of diverse mental states regarding symptoms of schizophrenia. Using the Draw-A Person Test (DAP), the study also explored self representation differences between individuals who were diagnosed as schizophrenics and individuals not diagnosed with any mental illness.

Method: The study included 20 male participants - 10 of whom were diagnosed with schizophrenia and the remaining 10 participants were defined as normative. Each participant was requested to draw himself upon a white paper using a pencil. We examined between group differences relating to two main schizophrenia symptoms: distortion of reality perception which was hypothesized as present by the illustration of distorted legs or feet, and a lack of personality integration, which was evident through distorted outlines of the face, head or body.

Results: The results partially confirmed the hypothesis. Significant between group differences were evident by a distorted emphasis of legs, and a disconnected bodyline in the neck. However, no differences were found regarding feet instability and facial outline blurriness. This finding most likely derives from the high variance of schizophrenic sub-groups in the experimental group.

Conclusions: The concept of legs is important within control, autonomy and self defense domains. The frequent depiction of distorted legs within self drawings of schizophrenic individuals is connected to an improper development of personality, and a detached grasp of reality. Furthermore, disconnections in the neck outline which were found in drawings of schizophrenic participants indicate lack of integrative ability. This deficit characterizes schizophrenia. Further exploration is required in order to expand understanding regarding emotional differences between schizophrenic sub-groups.

Key Words: Draw a Person Test, indicators, Schizophrenia, distortion of reality perception, lack of personality integration, male.
Mothers’ Reactions to their Children’s Diagnosis of Mental Retardation: Relations to Maternal Sensitivity

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Parenting a child with Intellectual Disability (ID) presents unique challenges, among which are the adjustment of parental expectations and hopes for their child, and coming to terms with, or “resolving”, the feelings associated with the child’s diagnosis. The aim of the present study was to examine the implications of mothers’ resolution for their sensitivity during interactions with their children. We hypothesized that mothers who are Resolved will be more sensitive during their interactions with their children compared to mothers who are Unresolved. Because it may be more difficult to resolve the diagnosis of children with more severe mental retardation we assessed children’s IQ and adaptive functioning as well.

32 preschool children between the ages 2.5 - 5.5 and their mothers participated in the study. All children had clinical diagnoses of non-syndromic ID and they were diagnosed again as part of the study using the Mullen Scale of Early Learning (1995) and the Vineland Adaptive Behavior Scales (1984). The Reaction to Diagnosis Interview (Pianta & Marvin, 1992) was used to examine mothers’ Resolution, and the Emotional Availability Scales (Biringen, Robinson & Emde, 1998) were used to assess maternal sensitivity. Due to the stress involved in parenting a child with ID the Brief Symptom Inventory (Derogatis & Spencer, 1982) was used to assess mothers’ psychological distress.

30% of the mothers were classified as “Resolved” regarding their child’s diagnosis and 70% were classified as “Unresolved”. Resolution was unrelated to the severity of children’s ID. In addition resolution was unrelated to maternal psychological distress, as well as mothers’ age, education, and SES. The findings supported the hypothesis that maternal resolution is positively associated with maternal sensitivity. Also, the lack of association between resolution and the severity of children’s ID is important because it suggest that mothers can be resolved even with respect to children whose disability is severe.

Key words: Intellectual Disability, Maternal Resolution, Maternal Sensitivity.
Initial Implementation Of Drama For Healing Psychosis
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This study addressed the initial clinical implementation of psychodrama as a method for healing individuals who suffer from psychosis by examining psychodramatic elements and techniques portrayed in Goethe's 18th century singspiel (i.e., song-play) Lila.

Method: Text-based comparative analysis of both the dialogues and Goethe's stage directions in Lila through the lens of a Morenian-psychodramatic reading of the singspiel focused on the following three aspects: (a) psychodramatic process, (b) principal elements, and (c) techniques.

Findings: The textual analysis of Goethe's singspiel revealed: (a) the psychodramatic process in its three parts as a basic structure of the treatment portrayed in the singspiel: warm-up, central dramatic action, and closure; (b) principal elements: The garden serves as a psychodramatic stage, Lila herself is commensurate with the psychodramatic protagonist, Dr. Verazio fulfills the three functions of the Morenian psychodramatist, and Lila’s family members and friends function as auxiliary egos who play in her psychodrama; (c) psychodramatic techniques at two levels of agreement. Full agreement was ascribed to the use of chorus to encourage and stimulate the protagonist and the use of soliloquy to express Lila’s inner-voice. Partial agreement was ascribed to two techniques in a broader interpretation: Lila performs role reversal when she 'steps into' the role of the prisoners to empathize with the role of the victim, and Friedrich's and Almeida's song echoes to Lila her inner-voice similarly to the double technique.

Conclusions: These findings suggest that during the Enlightenment the notion of healing psychotic fantasy through dramatic fantasy was clinically acknowledged. Further findings suggest a considerable resemblance between Goethe's concept of therapeutic drama and Moreno's psychodramatic method of treating individuals who suffer from psychosis in such a manner that anticipated the use of psychodrama in contemporary psychotherapy.

Key words: Psychodrama; Psychosis; Moreno; Goethe; Lila.
This study investigated how the implementation of Intermodal Psychodrama (IPD) - a therapeutic-oriented technique that utilizes Morenian psychodrama and other expressive-artistic modalities - contributed to high-school theater students' process of building a role from a written play.

Method: A qualitative drama-based research (Hervey, 2000; McNiff, 1998) consisted of the following six phases: free choice of a character's monologue from a play, pre-process performance, identification of character's key sentence, decentering to a psychodramatic exploration of students' personal connection to the character, further artistic exploration via intermodal-transfer to a different art modality, re-centering on the written character, and postprocess performance.

Data collection: A video camera recorded students' IPD process and then reflective focus group conversations were held.

Data analysis. The recorded data were transcribed and qualitative content analysis was performed.

Findings: IPD - (a) encouraged students to a more genuine expression of "who they are"; (b) learning experience was "more personal and meaningful"; (c) expanded play-range, promoted spontaneity, and produced fresh, authentic, and believable performances; (d) released from performative fixation; (e) enabled to find their personal connection to the character.

Conclusions and final remarks: Although Moreno decisively separated written drama from impromptu psychodrama, findings show that therapeutic-oriented techniques such as IPD can revive and personalize text-based performances and students' educational experience. Facilitators of IPD must obtain the consent of students to engage in the process as well as protect students from excessive emotional and physical exposure yet foster sufficient freedom of expression which respects the self and others.

Keywords: Expressive Therapy, Intermodal psychodrama, Theater, Acting, Education, Moreno.

This study examined whether social class perceptions of Ethiopian-origin Israeli preschoolers are depicted by the children's house-drawings. Early age perception of social class and social marginality is known to have long range personal consequences including lowered self-esteem and self-perception as well as insecurity with regard to upward social mobility. Furthermore, such perceptions may possibly serving as a factor instigating social marginality. For children, the term social class is rather intangible. The use of drawing, as an implicative tool, bypasses verbal difficulties and provides the opportunity for self-expression. This study utilized the "house drawing" tool because in Israeli society, social class is often expressed through diverse aspects of the family home. The home's geographical location, exterior design, size and contents tend to characterize social class.

Researchers presented 20 Ethiopian-origin children (ages of 4½ to 7½) with two photographs: one of an Ethiopian child and the other of a non-Ethiopian child. The children were then asked to draw each photographed child's house. A comparison of the two sets of drawings, in terms of the indicators including the size of the house, location on the paper, additional symbols, and shadowing, was conducted.

The study's findings indicate the existence of certain differences between the two sets of drawings. Specifically, the findings demonstrate that young Ethiopian-origin children, perceive themselves as belonging to a lower social class than their non-Ethiopian counterparts.

Keywords: Social Class, Ethiopian-origin Children, House-Drawing.
A Comparison between Arab Breast Cancer Patients and Healthy Women Regarding Spousal Relationship, Body-Image, and Emotional Distress

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Background: There is very little research regarding cancer among Arab women and it focuses primarily on the spouse’s support and the women’s emotional distress.

Aims: to examine the characteristics of the spousal relationship (spouse’s support and sharing household tasks), body-image and their association with the level of emotional distress in Arab breast cancer patients, in comparison to healthy women.

Methods: Participants were 56 Arab breast cancer patients and 71 healthy Arab women. They filled out questionnaires regarding personal and medical details, spouse’s support, division of household tasks, emotional distress, and body-image.

Results: Breast cancer patients reported receiving more support from their spouses and more cooperation in household tasks, but a higher level of emotional distress than healthy women. However, no difference was found between the two groups regarding body-image. A Negative association was found between the spouse’s support and emotional distress while in the study group only, negative and significant association was found between body image and emotional distress, which appeared indistinct after carrying out a control on the research variables according to the regression model. No association was found between sharing household tasks and emotional distress. It also was found that spouse’s support mediated the relationships between the education and income levels and emotional distress.

Conclusions: The findings show the mutual effect of illness and cultural context on Arab breast cancer patients.

Keywords: Breast Cancer, Arab Women, Spouse’s Support, Sharing Household Tasks, Body Image, Emotional Distress.
Dialectic of splitting and integrating in the world of heterosexually married gay men

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Abstract: There is a widespread belief that homosexuality is a personal choice and that homosexual man can change and become heterosexual at will, and to fulfill his social roles accordingly. One of the major roles is marrying a woman, and indeed, many homosexual men comply with their social expectations and marry women. This phenomenon - Mixed-orientation marriage - usually unapparent, but is relatively frequent. The woman may or may not be aware of the man's sexual orientation if the man chooses to conceal his homosexuality. In both cases, life experiences are complex and challenging. Concealment of the sexual orientation may present difficulties for the man. If the woman becomes aware of her husbands' sexual orientation, the couple has to decide whether or not to terminate the marriage. Staying married has both individual and dyadic implications. This study intends to attain a broader and deeper insight into the phenomenon of mixed-orientation marriage. Accordingly, experiences and meanings in such a situation have been examined. A phenomenological paradigm was chosen as the most appropriate framework for investigating the subjective experience of the participants. Thirteen homosexual men married to women were interviewed. Seven disclosed their sexual orientation to their wives before or after the marriage, while six concealed it. The extensive data show that living within a mixed-orientation marriage can be located along a continuum ranging from splitting at one end to integrating at the other. Splitting occurs in the emotional, cognitive, and behavioral dimensions. Integration is characterized by the two life paths existing as interwoven phenomena, with the desire to maintain the combination between the two. Such an alternative perception challenges the concept that homosexual man cannot maintain the framework of a heterosexual marriage. This present study suggests an alternative model containing significant components that may contribute to the maintenance of a successful mixed-orientation marriage.

Keywords: mixed-orientation marriage, alternative family structures, gender roles, concealment, double life.
From Defense to Choice: The Meaning of Protection Orders
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Research aim: To analyze the meaning of the protection orders and its influence on the lives of battered women.

Method: Semi-structured, qualitative interviews were conducted with a sample of 12 women aged 32-58. At the time of the interview, 6 women had divorced from their abusive husbands, 4 were separated and 2 were still married. The research questions focused on the women’s relationships’ experiences prior to, during and following the protection order; their perception of the welfare and legal systems during and following the issuing of the protection order; their evaluation of the protection order's effectiveness and its meaning for their lives in general.

Findings: The women perceive the protection order as assisting their transition from a defense and survival pattern to a position of choice — on emotional, couple, family and social levels. The protection order enables the women to choose a new, multi-dimensional, inverse or even paradoxical life narrative, and as a time-limited legal response, it enables them to develop a more coherent perception of their identity, as well of the choices they make. Nonetheless, women perceive the protection order as an unrealized promise of security for those whose reality is plagued by fear. In light of this, the order is also a source of existential anxiety and doubt, as it does not ensure absolute safety.

Discussion: Based on the integration between existential and narrative theories, the discussion analyzes the meaning of the protection order for the interviewees, in terms of the emotional, including fear, and perceptual change that they undergo throughout the process.

Key words: battered women; protection order.
The Meaning of Psychiatric Hospitalization and the Return to Community Among People with Schizophrenia.

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In the year 2000, a law was passed in Israel, known as the Law for Community Rehabilitation of the Mentally Ill. The Community Rehabilitation Law was intended to provide a “basket of services” that will allow people who suffer from mental illness and were hospitalized, to return to their community.

This research, using qualitative research methods, tried to understand and explore the meaning of the psychiatric institutionalization and return to the community under the new legislative setting from the viewpoint and experiences of the participants themselves. Fifteen mentally disabled persons were interviewed in this research, all were institutionalized and released for rehabilitation in the community under Israel’s new act. The data was collected after all interviews were recorded and analyzed.

The qualitative data analysis exposed a continuous process of four conceptual categories: 1. Viewing institutionalization as transformation from the “normal” to the “abnormal”; 2. Viewing the institutionalization as a process moving from the “abnormal” back to the “normal”; 3. Viewing the return to the community as “re-birth”; and finally, 4. Viewing the community-based rehabilitation as reality which enables normality along side the mental illness.

In the discussion, this research presents a theoretical model which presents the meanings and experiences of the participants as a continuity, in which the whole process of moving from the community to the institution and back to the community as one continuous process integrated in each other. Within this continuing process, the community-based rehabilitation legislation serves as a key component, well integrated within the whole continuum that allows people with mental illness to return to “normality” within the community.

Key Words: Mental Illness; Community-based Rehabilitation; Schizophrenia.
Sisters of women with Eating disorders: Neuro-cognition and Personality

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Aim: We examined heritability as a risk factor and looked for protecting factors in Eating disorders (ED). We profiled women with ED and their sisters in neuro-cognitive and emotional abilities and personality traits.

Method: We tested 5 groups of women: Bulimia Nervosa Purging type; Anorexia Nervosa Purging and Restricting Type; women who had a sister with one of these disorders; and healthy women. All participants performed 3 computerized cognitive tasks: size evaluation, lexical decision and facial-emotion recognition. Computerized tasks were tested in divided visual-fields in order to define hemispheric patterns. We measured error rate and response time. Personality traits were evaluated using questionnaires: depression, impulsivity, obsessive-compulsiveness and alexithimia.

Results: In the size evaluation and the lexical decision tasks, the sisters scored in between the healthy and the ED groups. In the emotional facial task, the condition in which stimuli were presented in different visual fields vs. in the same visual field resulted in a grater bilateral advantage (interhemispheric interactions) for the healthy controls, and significantly less for the women with ED or their sisters. In all questionnaires, but alexithimia, the sisters were similar to the healthy participants and different from all ED groups.

Discussion: Results suggest that there is a difference in cognitive processing patterns in sisters of women with ED that may be genetic and point to a risk factor. It seems that the personal trait profile of the sisters may be a protector factor. Our findings also point to a difficulty in interhemispheric communication for emotional processing.

Key words: Eating disorders, family, hemispheres, neuro-cognition, personality.
Size evaluation in Anorexia Nervosa

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Aim: Eating Disorder (ED) patients and especially women with anorexia tend to show bias in evaluating body size or food related stimuli. We examined ability and hemispheric dominance in women ED in an emotionally unbiased size evaluation task. Differences will indicate a more general deficit in size perception and evaluation that may be independent of the emotional aspects of the disease.

Method: We compared 3 groups of ED patients to a group of 21 healthy control participants: 19 Bulimia Nervosa Purging type (BNP), 18 Anorexia Nervosa Purging type (ANP), and 15 Anorexia Nervosa Restricting type (ANR). We measured error rate (ER) and response time (RT) using a divided visual field paradigm in which participants were required to decide whether a bar graph presented to the right or left visual field (RVF/LVF) represented an odd or even number.

Results: The control group had the best performance and the ANR group had the worst. All groups showed the expected left visual field advantage in RT. All of the groups except ANR showed this pattern for ER.

Discussion: The low scores of the AN groups suggests that previous reports of biased body size evaluation in women with anorexia may not be specific to emotional stimuli, but may also be connected to a different (less effective) way of processing size information in general. However, it is still not known whether this cognitive difficulty is a result of the ED (especially low body weight) or one of the causes contributing to its development.

Key words: Eating disorders, size evaluation, hemisphere.
Attachment Style, Help Seeking, and Dropout from Therapeutic Communities for Drugs Addicts in Israel
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The completion of treatment for addicts in therapeutic communities is found to be of the utmost influence in the prediction of the chances of abstaining from drug use over time, and of an increase in pro-social activities. Yet, dropout rate from the therapeutic communities is high. Many resources are being invested in research on the phenomenon of dropout in itself and are being directed to the identification of factors which promote or hinder the treatment framework, with the goal of minimizing dropout. Based on the Attachment Theory (Bowlby) and the Help seeking model (Keith-Lucas), the present research aimed at examining influence of attachment styles and background variables (gender and pressure from the legal system) on the extent of willingness to seek help, and their influence on the dropout from therapeutic community treatment. The sample included 146 residents from three therapeutic communities for addicts in Israel, who agreed to participate in the research. At the beginning of the treatment process, the participants filled out questionnaires measuring socio-demographic characteristics, willingness to seek help, and attachment styles. Approximately one year later, dropout details were evaluated. The findings indicate that those who showed secure and anxious-ambivalent attachment styles were found to have a higher level of willingness to seek help yet residents with pressure from the legal system were less likely to seek help. More women dropped out and the length of their stay was briefer, in comparison to men. Despite this, attachment styles and willingness to seek help did not influence dropout significantly. These findings suggest that willingness to seek help at the beginning of the residential treatment and attachment styles may not necessarily indicate motivation latter in the treatment. Recommendations are directed towards raising motivation and increasing willingness to seek help within the treatment process.

**Keywords:** Drug addicts, Therapeutic community, Treatment dropout, Help seeking, Attachment style.
Client Commitment of Probation Officers: The Impact of Affective and Continuance Organizational Commitment, Burnout, and Use of Authority

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In this study we examined the factors that affect juvenile probation officers’ feelings of commitment to their clients. We focused on variables regarding work attitudes towards the organization and the use of authority as a therapeutic tool and their impact on juvenile probation officers’ level of commitment to their clients.

For this purpose, an attitudes questionnaire was completed by juvenile probation officers throughout Israel. 115 probation officers completed the questionnaire. Confirming the research hypotheses, positive correlations were found between commitment to clients and both affective and continuance organizational commitment, between affective organizational commitment and professional experience and experience in the organization. In addition, we found negative correlations between burnout on the one hand and continuance organizational commitment and commitment to clients on the other, and between burnout and use of authority as a therapeutic tool.

The findings also indicated a higher level of affective commitment than continuance commitment among probation officers involved in direct care of clients. Affective and continuance commitment to the organization, education, and level of burnout, were found to predict commitment to clients.

The research data shows a high frequency of using authority as a therapeutic tool among probation officers, and a negative correlation between authority and burnout, which was found to be low. This finding indicates the efficacy of the authority tool, utilized uniquely by probation officers.

The significance of the study is in expanding existing scientific knowledge regarding the term “client commitment”. This term has been widely studied in various service fields, however no comparable research was found in the field of welfare, including juvenile probation services.

Clarifying factors affecting this commitment and developing additional tools and suitable responses to shifts in society in general and among youth in particular will enable caregivers to develop commitment to clients and deliver high-quality and dedicated care.

**Keywords:** client commitment, juvenile probation officers, organizational commitment, Authority, continuance organizational commitment, Affective organizational commitment.
Background: Systemic lupus erythematosus is a chronic autoimmune disease which affects the blood vessels and connective tissues of the body. The illness is nine times more prevalent among women than men, and generally presents during the fertile years.

Aims: to shed light on lupus patients in Israel, particularly the relationship between sense of coherence (SOC), psychological distress and degree of adherence. Psychological distress and adherence will also be examined as possible mediators in the relationship between SOC and health.

Methods: One hundred lupus patients aged 18-60 participated in the study, most of them women. 37 subjects were treated at the Rambam Medical Center and responded by mail. 63 responded to the questionnaire that was attached to the forum of the "Lupus Organization of Israel", over the Internet. Data were gathered through the following questionnaires: demographic, health status, level of functioning, symptom severity, adherence to treatment, SOC, and hospital anxiety & depression.

Results: A high SOC was associated with higher adherence to treatment and lower psychological distress. The associations between psychological distress and adherence and between adherence and level of functioning and symptoms severity were not statistically significant. Psychological distress was significantly associated with level of functioning and symptoms severity and mediated the relationship between SOC and level of functioning and symptoms severity.

Conclusions: While direct relationships were found between psychological distress and level of functioning and symptoms, the relationship between SOC and the outcome variables was indirect, mediated by psychological distress. Adherence was not related to the other psychosocial or outcome variables. Further studies to increase understanding of factors associated with adherence is needed.

Keywords: Systemic lupus erythematosus, SOC, Antonovsky, Psychological Distress, Adherence, Functioning, Symptoms severity.
Sexual Identity, Body Image and Life Satisfaction Among Women with and without Physical Disability

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Background. Physical disability creates special problems for the development of sexual relationships. Women with physical disabilities have greater difficulty forming and maintaining intimate partner relationships. These painful facts and their impact on general quality of life depend on various factors. It is not the disability per se, but rather the contextual, social, physical and emotional dimensions that may have an influence on self-esteem and quality of life.

The objectives: The goal of the current study was to examine the association between sexual identity, body image and life satisfaction among women with and without physical disability; to estimate the moderating effects on these correlations of family status; and to expose the interpersonal in-group patterns of congruency between sexual identity and life satisfaction.

Methods: Seventy women with physical disability (spinal cord injuries and injuries resulting from polio) and 64 women without disability completed the following questionnaires: Sexuality Scale, Body Image Scale and Quality of Life Questionnaire.

Results: The results demonstrated that women with physical disability had the same sexual needs and desires as women without disability, but their body image, sexual self-esteem, sexual satisfaction and life satisfaction were significantly lower. These differences were stronger among young adult women than among more mature women. It was also found that sexual satisfaction was a major factor in explaining the variance in life satisfaction in both groups, and the relationships between sexual satisfaction and life satisfaction were bidirectional. At the same time, different patterns of congruency and inconsistency between sexual satisfaction and life satisfaction were exposed in both groups. In addition, the research demonstrated a moderating effect of family status on links between sexual and life satisfaction.

Keywords: Women with Physical Disability; Sexual Identity; Body Image; Life Satisfaction.
Discourses of "Cultural Competence" in Social Work education: Conceptualization of a construct
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Socio-political changes of past decades have led the helping professions to respond to the diverse, multicultural fabric of societies. Social work policy-makers and scholars have dealt extensively with the development of particular knowledge and skills to work effectively in cross-cultural practice, resulting in the inevitable question of how to educate and train practitioners to become culturally sensitive and competent to working in diverse, multicultural environments. "Cultural competence" is generally understood as a set of congruent behaviors, attitudes and policies that come together in a system or agency, or among professionals, and enable them to work effectively in cross-cultural situations.

The current research is critically examining the ways in which the concept "cultural competence" is constructed and conceptualized in the social work professional discourse in Israel. Based on the qualitative research paradigm, in-depth interviews with social work educators, field instructors and students are being held and analyzed, as well as other relevant texts.

Preliminary findings indicate a discrepancy between the conceptualization of "cultural competence" on two levels: declarative and practical. On the declarative level, an indisputable consensus prevails regarding the importance and necessity of integrating elements of cultural competence within social work education, and the meanings ascribed to the construct seem to be comprehensible and coherent. On the practical level, however, the construct is rather fluid, inconsistent, incoherent and not based on a defined solid theoretical or practical framework. Its conceptualization and ascribed meanings seem dependent on various elements such as: geographic location (center vs. periphery), perceptions regarding the role of the profession (social change vs. therapy), affinity to the field, professional background, fields of interest, and personal background such as gender, immigration, ethnicity and nationality. Different patterns and mechanisms by which this discrepancy is formed, handled and explained will be exemplified and discussed.

**Keywords:** cultural competence, social work education, diversity, inter-cultural training.
Posttraumatic growth among breast cancer patients
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Background: The current study is based on the posttraumatic growth model (Calhoun & Tedeschi, 1998) which postulates that posttraumatic growth is the experience of positive changes that occur as a result of struggle with life crises and trauma.

Aims: To assess the relationships of cognitive and emotional processes, social support and demographic variables with posttraumatic growth in breast cancer patients who volunteer and do not volunteer to work with newly diagnosed breast cancer patients.

Methods: Participants were 108 breast cancer patients diagnosed at least three years prior to the study. Their age range was 29-77. They were divided into two groups: 68 women volunteering cancer patients and 40 women who did not volunteer. Data were collected by means of medical and demographic questionnaires; a posttraumatic growth questionnaire, a cognitive and emotional processing questionnaire, and a social support questionnaire.

Results: High levels of posttraumatic growth were found in both groups. No statistical differences were found between the groups in posttraumatic growth scores. Cognitive processing and emotional processing were highly and positively associated with posttraumatic growth, while the association between emotional expression and social support with posttraumatic was not statistically significant. The study variables accounted for 32% of the variance of posttraumatic growth variance, with cognitive processing, emotional processing being significant predictors of posttraumatic growth.

Conclusions: The findings point to the complexity of the posttraumatic growth construct and stress the need for further studies that will deepen our understanding of the constructs and its cognitive and behavioral correlates.

Key words: posttraumatic growth, breast cancer, cognitive processing, emotional processing.
Non-combatants in the line of fire: The experience of citizens from northern Israel who chose to stay at home during the Second Lebanon War.

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Goal: This study aimed to understand the experience of northern Israeli citizens who chose to stay at home during the Second Lebanon War. The study explored the reasons for their decision, the impact of living under fire and coping strategies.

Method: This qualitative study examined a sample of 15 participants, seven men and eight women aged 25-78, using in-depth interviews, describing the following issues throughout the war: participants' behavior, feelings and thoughts; changes in daily routine; coping strategies and relationships with significant others. Each interview was audio-taped and transcribed. Data analysis utilized the thematic analysis technique (Strauss & Corbin, 1998).

Findings: Data were organized into four main themes: 1) Contribution to the war effort - for the sake of family members, communities and set of beliefs. This entailed community activity, continuing to work, or simply staying home. This was perceived as victorious resistance and as a corrective experience for certain periods in Jewish history when Jews had to flee their homes. 2) Strong sense of belonging: a) to the family and b) to the community, the region and the entire state. 3) Fear as a challenge rather than a problem. The participants were committed to this challenge for the sake of their own self-esteem, their family (especially children), fulfillment of their strong connection to the state and to the idea that Jews are no longer refugees. 4) Maintaining routine – described by nearly all participants as a conscious coping strategy during the war.

Conclusion: The findings showed that Jewish history and the set of beliefs on which Israel was established as a Jewish State, both consciously and unconsciously colored the various themes of the participants' experience during the Second Lebanon War. These findings should be considered in cases where traumatic war experiences required therapeutic intervention, in addition to other psychological aspects.

Key Words: war, stress, resilience, set of beliefs.
The phenomenology of authenticity among disaffiliated ultra-orthodox Jews in Israel

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The present study is aimed to examine the meanings associated with experiences of authenticity as they applied to the subjective self. This approach, however, overlooks the interactive process through which the meaning of authenticity is constructed. By studying who chose to from the Haredic community one can observe the interactive, intersubjective processes through which culture and society are used to construct a new self, and thus a new sense of authenticity.

Based on qualitative in-depth interviews and analysis of written material, the present study shows how disaffiliated ultra-orthodox Israeli Jews identified in themselves a sense of "true self" based on a feeling of "differentness", "falseness", and estrangement from their community. Their “true self” is created through a continuous reflective process starting as early as childhood and adolescence, dealing with questions about the justification of normative habits (e.g., religious rituals) and their increasing inability to fulfill them. Their ability to reflect upon their feelings resulted in a sense of estrangement from themselves and their community, which eventually lead them to search for a different life style—one that would enable more authenticity.

Thus, preliminary analysis of the interviews indicates that the ability of raising doubts and searching for justification in relation to the cultural context and its meaning is a major component of the construction of authenticity. In other words, to be an authentic person in the fullest sense requires wholeheartedly identifying with certain concerns and commitments that are experienced as definitive of one's self.

Key Words: Authenticity, phenomenology, disaffiliation, true self.
Homosexuality and the Search for the Father:  
The Relationship of Homosexual Men with Their Father Figure in Childhood, and the Link between It and Their Intimate Relationships in Adulthood  
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Background: The relationship of a homosexual son with his father figure has increasingly been found to be of great value and significance for him. The nature of this relationship in childhood, whether the father is emotionally present or absent, determines the son's internal world, perceptions and, as evidence is beginning to show, his intimacy skills.

Aim: This study set out to describe and analyze those childhood experiences that constituted the nature of homosexual sons' relationships with their father, and to examine the connection between it and the nature of their intimacy skills and behavior patterns in their intimate and romantic relationships.

Methods: The study relies on qualitative methodology and follows the phenomenological paradigm, which is used to examine subjective, memory-based narratives. For these purposes, semi-structured in-depth interviews were conducted with ten male homosexual respondents.

Results and Conclusions: The study reveals a prominent, definitive experience of emotional lack which is emanating from the father figure, and experienced by homosexual men in childhood. This experience affects their intimacy skills in adulthood in two main ways: First, the emotional lack that defined the son’s attachment with his father figure largely accounts for their patterns of romantic attachment in adulthood. Second, the experience of an emotionally absent father establishes the way in which the son, as an adult, seeks romantic relationships. These patterns were found to run along a continuum between a desire to correct the relationship with the father, and an attempt to reproduce a rare instance of emotional intimacy with him.

Key words: homosexual, emotionally absent father, attachment, intimacy skills.
A school-based, teacher-mediated prevention program (ERASE-Stress) for reducing terror-related traumatic reactions in Israeli youth: A quasi-randomized controlled trial

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Background: Since September 2000 Israeli children have been exposed to a large number of terrorist attacks. A universal, school-based intervention for dealing with the threat of terrorism as well as with terror-related symptoms, ERASE-Stress (ES), was evaluated in a male religious middle school in southern Israel. The program was administered by the homeroom teachers as part of the school curriculum. It consists of 12 classroom sessions each lasting 90 minutes, and included psycho-educational material, skill training and resiliency strategies delivered to the students by homeroom teachers.

Methods: 114 7th and 8th grade students were randomly assigned to the ES intervention or were part of a waiting list (WL). They were assessed on measures of posttraumatic symptomatology, depression, somatic symptoms and functional problems before and 3 months after the intervention or the WL period.

Results: Three months after the program ended, students in the experimental group showed significant reduction in all measures compared to the waiting-list control group.

Conclusions: The ERASE-Stress program may help students suffering from terror-related posttraumatic symptoms and mitigate the negative effects of future traumatic experiences. Furthermore a school-based universal program such as the ERASE-Stress may potentially serve as an important and effective component of a community mental health policy for communities affected by terrorism.
School-based intervention for the treatment of tsunami-related distress in children: A quasi-randomized controlled trial

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Background: On December 26, 2004 a Tsunami hit the Southern Coast of Sri Lanka, leaving thousands dead and injured. Previous research has found significant mental health problems among children exposed to major disasters. School-based universal interventions have shown promise in alleviating distress and posttraumatic symptomatology in children and adolescents. This study evaluated the efficacy of a school-based intervention in reducing stress-related symptomatology among Sri Lankan children exposed to the Tsunami.

Methods: In a quasi-randomized controlled trial 166 elementary school students (ages 9-15) with significant levels of tsunami exposure and previous traumatic background were randomly assigned to a 12-session structured program “ERASE-Stress Sri Lanka” (ES-SL) or to a waiting list (WL) religious classes control group. Students were assessed one-week prior and three months after the intervention on measures of posttraumatic symptomatology (including PTSD and severity of posttraumatic symptomatology), depression, functional problems, somatic problems and hope.

Results: This study shows a significant reduction on all outcome variables. PTSD severity, functional problems, somatic complaints, depression and hope scores were all significantly improved in the ES-SL group compared to the WL group. No new cases of PTSD were observed in the experimental group.

Conclusion: This study adds to the growing body of evidence suggesting the efficacy of school-based universal approaches in helping children in regions touched by war, terror and disaster and suggests the need to adopt a two-stage approach toward dealing with trauma-exposed students, namely, starting with a universal intervention followed by targeted specialized interventions for those still suffering from posttraumatic distress.
A Longitudinal Study of Changes In Psychological Responses to Continuous Terrorism

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Objective: To longitudinally assess the prevalence and trajectories of posttraumatic stress symptoms in the course of ongoing terror, and the predictors of resistance versus late-onset and of chronicity versus recovery.

Method: Two telephone surveys querying symptomatology and predictors among a representative sample of 153 Jewish Israeli adults living in urban areas, conducted at a two-year interval during the Al-Aqsa Intifada, characterized by ongoing severe terrorism in Israel.

Results: Probable PTSD prevalence, mean number of symptoms, and rate of severe posttraumatic symptomatology increased over time. With this, about two thirds of those with probable PTSD and around two fifths of those with severe posttraumatic symptomatology at Wave I spontaneously recovered by Wave 2. Predictors of late-onset vs. resistance and recovery vs. chronicity differed. Late-onset of severe posttraumatic symptomatology was predicted by income reduction, a prior traumatic life event, sense of threat, dissociation, and coping via disengagement. Chronicity was predicted by sense of threat and pessimism about the future of the state.

Conclusions: Continuous exposure to terror has a strong negative impact on mental health, but does not prevent recovery among large proportions of the population. Results also suggest that prolonged exposure to terror may increase symptomatology more than trigger new PTSD cases.
Physician as Partner or Salesman?! Shared Decision-Making in Real-Time Encounters*

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Background: Shared decision-making (SDM) regarding medical treatment is increasingly advocated. Nonetheless, only a limited number of studies focused on the process of decision-making in real-time encounters. The present paper aims to document and analyze this process, by examining how decisions regarding treatment decisions are achieved during breaking bad news (BBN) encounters, as well as their consequences.

Method: The analysis is based on a multi-method, multi-participant phenomenological study on BBN to adolescents and their families regarding a chronic illness. It included 17 units of analysis (observations and physicians, parents and adolescents interviews). All observations and interviews were audio-taped and transcribed verbatim.

Results: The analysis identified eight different presentation tactics used in actual encounters during which physicians made various use of language, syntax and different sources of power to persuade patients to agree with their preferred treatment choice. The tactics included various ways of presenting the illness, treatment and side-effects; providing examples from other success or failure stories; sharing the decision only concerning technicalities; and using plurals and authority.

Conclusions: The findings suggest that SDM may be a philosophical tenet or a value advocated, but it is not necessarily implemented in actual communication. Rather a variety of persuasive approaches are used to ensure agreement with the physician’s recommendation. The discussion presents the complexity of sharing a decision, especially in the initial BBN encounter; and the potentially harmful implications on building a trusting relationship between the physician and the family when a decision is not shared.

Key words: shared decision making; treatment decisions.
Personal Difficulties with Breaking Bad News and Their Influence on Patterns of Communication*

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Purpose: To evaluate the possible influence of personal difficulties and barriers arising within the news bearer and his/her self-awareness to them, on the patterns of communication during encounters involving breaking bad news (BBN).

Method: Following an intensive BBN course, 103 senior medical students from Sackler School of medicine were evaluated for their bad news delivery competencies by the analysis of their written descriptions of a disclosure encounter based on a challenging vignette. The students were further asked to reflect upon their own difficulties and barriers as a response to the specific vignette. Using an immersion/crystallization narrative analysis the authors analyzed the relationship between the BBN script and the self-perceived barriers and difficulties.

Results: Four types of communicators were identified and related to 45 different personal and professional barriers self-reflected by the students. These perceived barriers as well as the ability to self-reflect on them influenced the patterns of communication including the level of emotional connectedness, information provided, and chosen focus-of-care paradigm (physician/patient or relationship-centered.)

Conclusions: These findings empirically demonstrate that intrapersonal difficulties within the communicator and level of self-awareness to them influence the manner and content of the communication during the encounter. Therefore, enhancing self-awareness and addressing personal and professional difficulties will potentially help physicians cope with challenging communication tasks. A working tool is proposed to facilitate the integration of self-reflection (by identifying personal difficulties) into day-by-day planning and delivery of BBN.

Key words: Breaking bad news; communication skills; self-awareness.
Family stigma and Alzheimer's disease: A qualitative study of children as caregivers
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Aims: Stigma by association or courtesy stigma is the stigma felt by those associated with a stigmatized person. We aimed to explore the subjective experience of courtesy stigma as reported by children of persons with Alzheimer’s disease (AD), using qualitative methodology and Attribution Theory as its theoretical framework.

Method: In-depth interviews using an interview guide were performed with ten children of AD patients in Israel. Interviews lasted on the average 90 minutes, were digitally recorded and transcribed and analyzed.

Results: Our data indicated that stigma by association in the area of AD was primarily experienced in three dimensions: family caregivers’ stigma, lay public’s stigma, and structural stigma. We found that stigma by association in all these dimensions follows an attribution process in which cognitive attributions associated with the disease induce emotional reactions, which are then translated into behavioral responses.

Conclusion: Findings of this study stress that adult children living with stigmatic beliefs while providing care for their parents with AD. We suggest that swift steps be taken in order to deal with these stigmatic beliefs (e.g., to have more studies on this topic; dealing with caregivers’ stigmatic beliefs in any intervention program or support group).

Keywords: Stigma, Dementia, Caregivers, Stigma by association, Attribution Theory.
Law, Ageing and the Right to Strike in the Defense of Pensioners’ Rights

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Background: The ageing of the Israeli society places new legal challenges for its legal institutions. One of the latest legal challenges is the existence of the legal right to strike, by active labor unions, not for defending the rights of active workers, but rather for the rights of pensioners – or past workers.

Methods: This research used a “case study” methodology, analyzing and examining a well known Israeli legal case that included two contradicting court decisions: first – made by the regional labor court, the ruled that it is illegal to strike for the rights of pensioners; second – made by the national labor court, ruling the opposite.

Findings & Discussion: The case study analysis shows that in fact, the law in Israel can be constructed under two contradicting conceptual inter-generational paradigms:

(1) The inter-generational conflict paradigm: under this paradigm, “young” and “old” generations are in constant socio-economic conflict, struggling for a bigger share in an ever shrinking pool of resources;

(2) The inter-generational solidarity parading: under this paradigm, “young” and “old” generations share mutual commitment, and cooperate in promoting their mutual existing and future interests.

Therefore, the contradiction between the two legal decisions, eventually, represents a value-based conceptual construction of inter-generational relationships.

Key Words: Aging & Law; Inter-Generational Justice; Pensioners’ Rights.
Factors affecting medical students’ willingness to consider residency in geriatric medicine: Examining the Theory of Planned Behavior
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Background: There is a dearth of knowledge regarding the motives leading medical students to choose a geriatric residency. Aim: The objective of the study was to examine medical students’ willingness to specialize in geriatric medicine and the factors affecting their decision using the Theory of Planned Behavior as its theoretical framework.

Method: A structured 74-items questionnaire was used to assess medical school students’ willingness to specialize in geriatric medicine. According to the three components of the Theory of Planned Behavior, students’ attitudes, subjective norms and behavioral control were also assessed. Knowledge about aging and the elderly and exposure to elderly persons were also examined. A total of 198 students (62% response rate) at the Technion’s School of Medicine participated in the study.

Results: Participants reported low willingness to specialize in geriatric medicine upon graduation. A strong and statistically significant association was found between attitudes toward geriatric residency and willingness to specialize in geriatrics. Logistic regressions showed that the only strong significant predictor of willingness to specialize in geriatrics was the student’s attitudes toward geriatric residency. The participants reported low exposure to old people, moderate knowledge about aging and moderate positive attitudes towards the elderly.

Conclusions: Medical students’ willingness to specialize in geriatric medicine upon graduation was found to be low. The Theory of Planned Behavior was found to be a suitable model to examine medical students’ willingness to choose geriatric residency in the future. The participants were under-exposed to the elderly during their studies and that their knowledge and attitudes towards the elderly were moderate. By introducing the subject of geriatrics into the medical school curriculum from the first year of study and by exposing medical students to relatively healthy and functioning old people, it might be possible to change their attitudes towards the elderly and to a geriatric residency.

Keywords: Medical students; attitudes; older people; geriatric knowledge; Theory of Planned Behavior.
Data on relationships between older mothers and potential care giving daughters "one-moment-prior-to-dependency" is scarce. The goal of the study was to identify how mothers and daughters negotiate their perceptions and responsibilities around changes in their lives. Specifically, to analyze mother-daughter relationships at a time of transition when mothers begin to show signs of frailty, signaling that care giving may be needed. The present study examined intergenerational relationships of mothers and daughters at the stage leading to the care giving experience. Using in-depth interviews with twenty older mothers (76-87) and twenty adult daughters (49-58), information was gathered about relationships, expectations and experiences in the context of the transition from poor health to ill health and from autonomy to dependency. The data were collected as part of a larger study on quality of life of elders and adult children. Data showed four core categories: (1) Perceptions of autonomy vs. dependency was central in all interviews (2) Perceptions of filial responsibility; (3) Mother-daughter relationship types (warm and close, warm-conflictual, and ambivalent); and (4) Coping styles (preservation of autonomy, social – familial disengagement, coping with dilemmas, communication concealment). The research reflects the diversity of mother-daughter relationships in unique turning point in their lives. Family members and professionals should consider the special needs of both generations that emerge at onset of frailty.

Key words: Ageing, autonomy and dependency, mother-daughter relationships, ambivalence, conflict.
Perceptions of self-stigma and its correlates among older adults with depression: A preliminary study
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Background: Depression is common in old age and is often associated with stigma. However, to date, little is known about self-stigma (internalization of stigmatic beliefs) in depressed elderly persons despite its importance and consequences.

Aim: The study examined self-stigma in depressed elderly persons and its correlates.

Method: Phone interviews were conducted with 54 persons diagnosed with major depression (78% female, average age = 74) from a psychogeriatric clinic in the central area of Israel. Self-stigma was assessed using an adapted version of the Internalized Stigma of Mental Health (ISMI) scale. Symptoms of depression were assessed using the Short form of the Geriatric Depression Scale (GDS). Self-esteem was measured using Rosenberg’s Self Esteem Scale. Information regarding socio-demographic and psychiatric health characteristics was also collected.

Results: Self-stigma was relatively moderate with a tenth to two-fifth of the persons reporting self-stigma. Those who reported higher levels of self-stigma were younger than those who did not report. Income and education were lower in persons who reported high levels of stigmatization. Persons who reported stigmatization scored higher on the GDS and reported lower self-esteem than those without stigmatization.

Conclusions: This study represents an uncommon effort to examine the correlates of self-stigma in depressed elderly persons. Since self-stigma exists among older adults, further studies are required to extend this body of knowledge.

Key words: Self-stigma, perceived stigma, depression, older adults, mental illness, Welfare.
Dietitian’s professional stigma towards obese patients

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Background and Aim: Obesity is a strong cause for social stigma among the lay public. A few studies conducted among health professionals in general have shown that even professionals who treat obese people have stereotypes about fat people, although sometimes to a lesser extent than lay persons. However, the findings of these studies are limited since they are not based on theory. The aim of this study was therefore to explore dietitian’s professional stigma towards obese patients based on Attribution Theory.

Methods: A survey was conducted among public dietitians working in Clalit Health Services (occupying 259 dietitians) and Maccabi Health Services (occupying 214 dietitians). Questionnaires were distributed during dietitians’ staff meetings. The questionnaire included the Dietitian’s Obesity Attribution Questionnaire (DOAQ) based on Corrigan's Attribution Questionnaire. The DOAQ was developed by the researcher following a qualitative research conducted with focus groups of dietitians.

Results: A total of 235 questionnaires (81% response rate) were collected. Dietitians expressed more positive (empathy, pity) than negative (anger, frustration) feelings towards obese patients. Obese patients with an external locus of control provoked more negative feelings than obese patients with an internal locus of control. Negative feelings lead to a decreased desire to help and to an increased avoidance, both professionally (e.g. less energy and effort), inter-personally (e.g. body language), and instrumentally (e.g. shorter session).

Conclusions: Dietitians' stigmatic beliefs towards obese patients follow a cognitive-emotional-behavioral process as hypothesized by Attribution theory. Still, several unique characteristics were found such as the importance of the locus of control of the obese individual which triggers either positive or negative feelings, leading to either aiding or rejecting behavior.

Key words: obesity, stigma, dietitian, attribution theory, locus of control.
Predictors of health care utilization during the last year of life of elderly persons

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Background and aim of the study: The last year of life frequently attracted health care planners' attention. It is assumed that a persons' final year of life impose a heavy burden on health care expenditures. However, the number of studies examining health care utilization in the last year of life is very scant. The aim of this study was to examine which factors contribute to health care utilization in the last year of life.

Hypothesis: Network size will influence service utilization during the last year of life.

Method: Participants were 139 next-of-kin of Jewish elderly individuals who had died during the course of the previous year. The data collected included decedent's use of health care services (i.e., doctor visits, nursing assistance); functional (ADL/IADL) and cognitive decline during the last year of life; social network; socio-demographics; and cause of death. The data were analyzed using multiple regression techniques, with health care utilization as outcome variable.

Results: The majority of the decedents were female (79.5%), immigrants (90.5%), and married (98.9%). The mean age was 79.5, and the mean number of years lived in Israel was 49.1. Statistical analysis showed that, when controlling for cause of death and functional and cognitive decline, the number of children and grandchildren had a significant effect on the use of health care services (respectively β -.840 p.006 and β .867 p.009).

Importance: Functional and cognitive decline alone do not predict health care utilization in the last year of life. The social network surrounding the older individual is instrumental in determining the use of health care services in the last year of life. Health care policy encouraging the involvement of persons in the social environment of older individuals during their last year of life might help to reduce health care costs.

Keywords: last year of life, social network, health care utilization.
Literacy and Subcortical Auditory Function
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Reading and auditory processing deficits co-occur in many children
diagnosed with reading problems, yet the functional relationships
among cortical and subcortical auditory processing and reading are
poorly understood. We now show that reading and some
phonological skills are significantly correlated with the timing of
subcortical auditory processing and also (to a lesser extent) with
the robustness of subcortical representation of the harmonic
content of speech sounds, but not with pitch encoding. These data
confirm previous findings of high prevalence of subcortical timing
deficits in children diagnosed with learning disabilities. They further
suggest that reading skill may depend on the integrity of subcortical
auditory mechanisms and are consistent with the idea that
subcortical representation of the acoustic features of speech,
shaped by reciprocal interactions between cortical and subcortical
auditory mechanisms during development, may play a role in
normal reading as well as in the development of reading disorders.
These data establish a significant link between subcortical auditory
function and reading, adding to the understanding of the biological
bases of reading. At a more general level, these findings are
among the first to establish a direct relationship between
subcortical sensory function and a specific cognitive skill (reading).
Inter-hemispheric connectivity during auditory rhyming task in children.

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In the last decades there is growing evidence for the involvement of the right hemisphere in language processing. However, the way the two hemispheres interact in linguistic processing in general, and specifically the contribution of the right hemisphere to phonological processing are yet to be discovered. In the current study 39 healthy children (age 9-15) were examined during an auditory rhyming decision task to spoken words using fMRI. Dynamic Causal Modeling (Friston et al., NeuroImage, 2003) was used to examine the interactions among brain areas that were active during this task. Six regions of interest were specified; 2 input areas: left and right primary auditory cortices (A1), left fusiform gyrus (FG), left inferior frontal gyrus (IFG), left and right superior temporal gyri (STG). A fully connected network was specified with all connections modulated by the rhyming task. Modulation of all inter hemispheric connections (from left A1, left STG, IFG, and FG) into right STG were significant. Similarly, modulation of all inter hemispheric connections (from right A1 and right STG) into left STG were significant. Moreover, modulations of inter hemispheric connections of A1 and STG were stronger into the left hemisphere compared to the connections into the right hemisphere (between A1 cortices, between STG cortices and between A1 and STG). Modulations of intra hemispheric connections from A1 to STG were stronger in the left compared to the right hemisphere. Altogether, our results suggest an important contribution of the right hemisphere to phonological processing, expressed by reciprocal connectivity between the two hemispheres, with, however, a clear left hemisphere asymmetry. These results are consistent with a cooperative model for inter hemispheric specialization in contrast to models suggesting either independent processing within each hemisphere or unidirectional transfer of information from the non-dominant to the dominant hemisphere.

Keywords: Inter-hemispheres connectivity, effective connectivity, rhymes, phonological processing, brain imaging.
How does grammar emerge?
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Background and goals: All languages have means for indicating 'who is doing what to whom'. A very common way for marking the roles of participants in an event is word order. But how does a specific word order emerge in the first place, and which factors determine the emergent order? Goldin-Meadow et al. (2008) suggest that one word order is cognitively more basic: Subject-object-verb (SOV, as in "Girl apple eat"). They further suggest that other word orders found in the world's languages arose as a result growing complexities in the communicative needs as language communities grew and became more complex. Our goal in the present study is to pinpoint some communicative needs that may give rise to word orders and grammatical structures other than the default SOV order. For this purpose, we created a situation where people had to communicate without relying on a known language.

Method: 33 hearing subjects (ages 20-28, mean 24.9) that were not previously exposed to a sign language were asked to describe by gesturing a set of 30 short video clips, each depicting a single event. These clips vary with respect to the number of participants, and whether the participants are human or inanimate objects. For the purpose of this study, only clips containing 2 or 3 participants were analyzed. The gesture productions of the participants were videotaped and then analyzed according to the order of the gestures representing the doer of the action (subject), the affected argument (object) and the action (verb).

Findings and conclusions: A clear distinction was found between events in which the subject was human and the object inanimate vs. events in which both participants were human. In the former, the SOV pattern is dominant (65% of transitive clauses), supporting Goldin-Meadow et al. In the latter, the dominant pattern is SVO (64%). Apparently, when both participants can be either subject or object, speakers have to resort to special means to disambiguate the message. These findings suggest that a major factor contributing to differential word order is the animacy of the referents, and this pressure is present from the very early stages of the development of a grammatical system, contra Goldin-Meadow et al.

Keywords: grammar emergence, word order, gesture.

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The Acquisition of Color terms in Spoken Arabic

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Background and goals: The acquisition of color terms in various languages combines non-linguistic cognitive abilities and linguistic abilities. Different languages divide the color spectrum in different ways. This raises the question whether language characteristics affect color terms acquisition. Various studies investigated the variables involved in the process in different languages. Yet, no comprehensive study has been conducted on dialects of spoken Arabic. The goal of the current study is to investigate the acquisition of color terms in the Nazareth Palestinian dialect. Two variables are examined: the nature of the color (primary vs. secondary) and grammatical gender (masculine vs. feminine).

Method: Subjects: 48 native Arabic speaking children, 2.6-6.6 years old, divided into four age groups. The procedure included a comprehension task (choosing one item out of four, according to the target color) and a production task (naming color terms as adjectives modifying a pictured object).

Results: For both tasks, performance in all the age groups was better with primary colors than with secondary colors. There was no significant difference between masculine and feminine forms in the comprehension task. However, in the production task masculine forms were preferred. Additionally, comprehension of primary colors in masculine forms precedes other categories, and reaches peek at the age of 2.6-4.6. The major progress in the production takes place between the ages of 3.6-5.6.

Conclusions: The nature of the color and grammatical form play a more important role in production than in comprehension. Since primary colors have a specific morphological form in Arabic, and masculine forms are simpler than feminine forms, our findings point out that the morphology of a language may have a significant role in the process of acquisition of color terms, thus enriching our understanding of the factors involved in color terms acquisition in different languages.

Key words: acquisition, color terms, spoken Arabic, adjective agreement, morphology, comprehension, production.
The Acquisition of Hebrew Vocabulary by Preschool Immigrant Children

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The present study investigates the language experience of young immigrant children in Israel. This is a first attempt at providing a holistic and longitudinal account of pragmatic and linguistic development in second language (L2) with preschool children. The study comprises thirty five children (four to six year old children at the onset of the study), from diverse backgrounds (mainly Ethiopian, French and Russian) followed for the duration of three years to date. The methods used for data collection combine linguistic-ethnography field work with speech elicitation in semi-structured interviews and standard tests of language competence in first (L1) and second language (L2). This presentation will focus on the measures of L2 proficiency as reflected by vocabulary tests scores. The Expressive One-Word Picture Vocabulary Test (EOWPVT) for expressive vocabulary and the Peabody Picture Vocabulary Test (PPVT) for receptive vocabulary were used in the first and second years of the study.

Test scores were compared to scores obtained from native Israeli Hebrew speaking children with a similar age range. The results show (a) In first and second year, the immigrant children's age-equivalent scores (AES) are significantly lower than their chronological age (CA) scores, (b) The gap between CA and AE in the second year is significantly smaller, showing improvement in the vocabulary of the immigrant children from the first to the second year of the study, and (c) The gap between CA and AE of the immigrant children in the second year of the study is still significantly larger than that of the native Israeli children. Thus, although a significant improvement from the first to the second year of the study was noticed in the vocabulary scores, the native Israeli children remain "moving targets" for the immigrant children.

Key words: Second language, vocabulary, immigrants, preschool children.
Adoption: State policy and public views

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Background and Objectives. The state of Israel funds fertility treatments almost unrestrictedly to any woman until the age of 45 (or 51 if she is using a donor egg) irrespective of her marital status, sexual orientation, financial circumstances, mental or social wellbeing. Even women who have children from previous relationships are eligible to free care until they have two children with their current partner. In striking contradistinction, adoption applicants must fulfill a long list of requirements in order to qualify for adoption. Moreover, eligible applicants have to wait five to seven years to adopt a healthy newborn in Israel, or else opt for inter-country adoption which is an extremely complicated bureaucratic process, entailing exceedingly high expenditure – roughly $30,000-$40,000 – in excess of an average Israeli annual income. Yet, adoption applicants receive no financial or legal assistance whatsoever. The present study probes prevailing notions regarding adoption among the general Israeli public: what do Israelis know about adoption? How do they view this route to family formation? Whom do they expect to fund the procedure?

Methods. Study was carried out by means of survey. Four hundred questionnaires were delivered in a variety of public spaces: in shopping centers, medical clinics, bank branches, public transportation, diverse work places.

Findings. The public perceives of adoption as easier and more accessible than it actually is. The waiting period for an Israeli newborn is perceived as shorter than it is and the costs of inter-country adoption are underestimated. Possibly related to this view is the greater acceptance of private funding of adoption as compared to fertility treatments.

Conclusions. Adoption emerges as a lesser route to family formation, entitled to smaller public support. The paper suggests a politics-embedded interpretation to the observed difference.

Key words: Israel, reproductive policy, fertility treatments, adoption, family, kinship.
This study aimed to investigate the socio-demographic and clinical characteristics of BRCA1/2 carriers opting for preventive surgeries. Of 148 BRCA1/2 carriers, 111 (75%) had unilateral breast cancer (BC) and 37 (25%) were asymptomatic women. The study protocol integrated socio-demographic and clinical follow-up; and psychological questionnaires. Prophylactic oophorectomy was reported by 84 (75.7%) and 25 (67.6%) unilateral BC patients and asymptomatic women, respectively. Comparable mean ages at oophorectomy (47±9 years) were noted for both BC patients and asymptomatic women. However, different mean ages of 44±10 and 33±9 years recorded for BC and asymptomatic surveillance groups, respectively (p<.05). High state of anxiety characterized the surveillance group (BC patients-37.6±22.4 and asymptomatic-43±7.3) compared to the preventive oophorectomy group (BC patients and asymptomatic carriers 32±8.7). Among BC patients, 47 completed the study protocol. Of these, seven (15%) underwent contralateral prophylactic mastectomy and 12 (25%) performed bilateral mastectomy, however, following malignant findings. None of the asymptomatic carriers chose preventive mastectomy. Comparable state of anxiety characterized all BC groups. Higher BC risk perception was reported by patients who underwent conservative breast surgery (37%) compared to patients opting for bilateral or contralateral preventive mastectomy (20% and 24%, respectively). Prophylactic oophorectomy reduced the perceived risk for ovarian cancer to below 5%, however, contralateral preventive mastectomy reduced the perceived risk for BC to 20%. Prophylactic surgeries reduced the risk perception for breast and ovarian cancer, the highest levels of anxiety being predominantly expressed by BC and asymptomatic surveillance groups.

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"We're all in the same boat":
Nurses working in a shared war reality

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Background: In the recent war between Israel and the Hezbollah (2006), the entire civilian population in northern Israel was under missile attack, experiencing imminent danger and loss of sense of security. Healthcare providers, including nurses, had to be immediately available to work with war victims, while exposed to their clients’ traumas, as well as their own and family members’ anxieties. This sharing of war-related reality results in survivors and their helpers experiencing similar traumatic events during a specific period of time. Research on professionals working in a shared war reality is relatively new, and points mainly to psychological distress, but also to positive change and growth among practitioners. Nurses, specifically, have received sparse attention.

Aims: This qualitative study explored the experience of Israeli nurses who shared war-related reality with their patients in summer 2006, and the impact of this experience on their professional and private life domains.

Methods: The study used data from in-depth semi-structured interviews conducted six months after the war, with a purposive sample of 12 nurses, men and women, who worked in two main northern Israeli hospitals.

Results: Findings showed that in war time, nurses experienced hospital space, peer support and their own strong commitment to the nursing role as anchors of safety. They felt safer at work than at home. Patient-provider relationships were unusually manifest through mutual concern and shared self-disclosure, consequently transforming meanings of traditional patient-provider relationship boundaries.

Discussion: In times of terror, fundamental personal well-being is shattered. The work milieu, particularly patient-provider relationships, becomes a source of meaning, protection and personal growth. The findings of this study contribute to the understanding of a unique situation, representing states-of-war worldwide, where healthcare professionals provide help while exposed to the same hazards as their patients, and by so doing, become more competent and empowered.

Keywords: patient-provider relationships; shared-war reality; war trauma survivors; qualitative research.
Objective: To determine whether characteristics of Striae Gravidarum (SG) predict the risk for incidence and severity of vaginal trauma (VT) in childbirth.

Methods: A retrospective-observational study included 385 women who delivered vaginally and were assessed for SG scores. Vaginal trauma (VT) was defined as the outcome measure in cases where suturing was performed.

Results: Women with VT had significantly higher total striae scores (TSS) than women without VT (3.54±0.3 vs. 2.37±0.2, respectively; p=0.004). The most significant difference in striae scores was obtained for the breasts. Logistic regression analyses revealed that parity, neonatal birth weight, and breast striae score but not BMI were associated with greater VT incidence. Among multiparae women, TSS was found to be a significant predictor of VT.

Conclusion: This study promotes a better understanding of the interrelation between SG and VT and provides an SG measurement that can be applied in the clinical setting to better define women at risk for VT.

Key words: Striae Gravidarum, Vaginal Trauma, Childbirth.
Pro-nociceptive pain modulation in painful vs. nonpainful chemotherapy-induced polyneuropathy

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Background: Several chemotherapy agents induce neuropathy in cancer patients, which is often painful. Although the chemotherapy-induced neuropathy is a peripheral phenomenon, the resulting pain is likely to affect the central pain pathways. Painful neuropathy (PainfulNP) patients might express different pain processing mechanisms compared to non painful neuropathy (NonPainfulNP) patients.

Aim: The aim of the present study was to evaluate the pain modulation system among patients with painful and nonpainful chemotherapy-induced polyneuropathy.

Methods: This cross sectional study included 12 PainfulNP and 15 NonPainfulNP cancer patients that were tested for sensory thresholds (cold, warm, mechanical), heat pain threshold, mechanical temporal summation (TS) and 'diffuse noxious inhibitory control' (DNIC) - like effect.

Results: The PainfulNP patients showed significantly higher warm sensation threshold (p=0.026), higher TS (p=0.02) and less efficient DNIC (p=0.05) in comparison to the NonPainfulNP patients. Correlations were found between spontaneous pain and both TS (r=0.52; p=0.005) and DNIC (r=-0.40; p=0.05).

Conclusions: Pain modulation is more pro-nociceptive in the PainfulNP patients than in the NonPainfulNP, and the extent of this pronociceptive leaning correlates with the magnitude of clinical pain. Pathophysiologically, it is suggested that an a priori pronociceptive system facilitates the NP into being painful. Alternatively, the pain modulation might have been previously normal, and presence of pain per se could have induced the changes in the modulation system.

Key words: Cancer, Chemotherapy, Neuropathic pain, Pain modulation.
Eveningness, sleep habits, daytime functioning, and quality of life in Israeli adolescents

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Introduction and objectives: A shift towards eveningness is a hallmark of adolescent sleep and is characterized by a preference for later bedtimes and waketimes. This shift has been attributed to biological changes in circadian and homeostatic sleep/wake systems, and by environmentally imposed life style factors. Our objective was to assess relationships between eveningness, sleep habits, sleepiness, sleep behaviors, depressed mood and quality of life in young Israeli adolescents.

Methods: Four-hundred and forty-nine adolescents from 8th and 9th grade middle-school classrooms in Northern Israel completed the School Sleep Habits Survey (SSHS) (Wolfson & Carskadon, 1998), and the Pediatric Quality of Life Inventory™ (PedsQL™) Short Form (Varni et al., 1999), both translated and modified for Israeli Hebrew speakers. The SSHS includes demographic data, sleep patterns, sleep problem behaviors, daytime sleepiness, morningness-eveningness preference and depression scales. The PedsQL™ includes physical, emotional, social, school and psychosocial functioning subscales and a total score. Pearson correlations with Bonferroni correction (p<0.002) were used to assess associations between eveningness and all other measures.

Results: Bedtimes, waketimes, sleep duration (hours:minutes) and sleep latency (minutes) were 23:02±55; 6:46±32; 7:22±1:96; 26±27 on weekdays, and 01:46±1:45; 11:29±1:59; 9:53±1:49; 22±41 on weekends, respectively. An increased tendency towards eveningness was significantly associated with later sleep and wake times and longer sleep duration on weekends, and with longer sleep latency, later waketime and shorter sleep duration on weekdays. Adolescents with an increased tendency towards eveningness reported significantly more sleepiness, more sleep problem behaviors, more depressed mood, and lower quality of life.

Discussion: In young Israeli adolescents, a tendency towards eveningness is strongly associated with poor sleep and reduced daytime functioning in terms of sleepiness and sleep problem behaviors, depressed mood and reduced quality of life. As the eveningness preference increases in late adolescence, these associations are expected to become stronger in high school.

Keywords: adolescent, sleep, eveningness, functioning, quality of life.
The Impact of a Short Respite on Strain and Performance
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Background and aim: Organizational reality exposes nurses to stressful conditions that affect their mental and physical well-being as well as their performance. Taking a respite is a measure organizations may adopt in order to protect employees’ health. The aim of the present study was to examine the impact of short respites (long free weekends) on the performance and well-being of hospital nurses.

Method: The study employed a longitudinal experimental design with a research and control groups. We collected data from 105 nurses before and after a long weekend; the research group consisted of nurses who had a free weekend, while the control group worked during the weekend. Questionnaires provided data on the quality of the weekend as well as on nurses’ performance and well-being.

Results: indicated a decrease of strain and exhaustion and negative affect after the respite in the research group but not in the control group. As for performance measures, the findings indicated an increase in performance in the research group, but only for those who reported positive experiences during the weekend.

Conclusions and Implications: Our findings corroborate Conservation of Resources theory, which maintains that periodic removal from work-related demands allows individuals to restore depleted resources and decrease negative states. By giving long weekends to their employees organizations can prevent counterproductive effects of job stress.

Keywords: Recovery, Nurses, Well-being, Performance.
Can routine protect older adults from sleep disturbances?

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Introduction: Among the common problems related to age is sleep quality; over half of older adults suffer from symptoms of insomnia. One of its major factors is age related changes in circadian sleep/wake regulation. Constant and organized lifestyle may protect from these changes in circadian rhythms. Preliminary findings have linked daily regularity to quality of sleep among healthy adults and in patients with Parkinson's disease. The current study investigated the relationships between daily routines, functional decline, and sleep quality among community dwelling elderly.

Methods and Materials: Ninety Israeli Russian speaking older adults living in a retirement community participated. Mean age was 75±7.49, 72% were women, and 82% live alone. Sleep quality was assessed with the Pittsburg Sleep Quality Index (PSQI). Daily Routines was assessed with Zisberg's Scale of Older Adults Routine. Functional status was assessed with the Lowten Instrumental Activities of Daily Living (IADL) and Barttel's ADL. Comorbidity was measured with Charlson's comorbidity scale. Older adults' routines were evaluated by a trained interviewer at three time points two weeks apart. Sleep quality, functional status, and comorbidity were assessed during the last interview.

Results: Mean sleep efficiency was 78%, indicating poor sleep, functional status was fairly good (Mean ADL 89 out of 100 and mean IADL 44 out of 50 ), and 75% of respondents indicated fair or good subjective health. Regression analyses indicted that level of stability in daily routine was significantly related to sleep efficiency (B=-.627, p=.0001), sleep latency (B=1.87, p=.0001), and total sleep quality (B=.100, p=.04), beyond functional status, comorbidities and age.

Conclusion: Maintenance of daily routines may be a protective factor against insomnia for elderly. Further studies should examine these relations in broader populations with regard to health, functional status and cultural background.

Key words: Subjective Sleep Quality, Daily Routines, Older adults.
Spinal involvement in Schmorl's nodes
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Study design. A descriptive study determining the location of Schmorl's nodes (SNs) (on which vertebra?) and its position (which surface and where?) along the thoraco-lumbar spine in the normal adult population.

Objectives. To establish the spatial distribution of SNs along the spine in order to reveal its pathophysiology.

Summary of background data. Although SNs are a common phenomenon in the normal adult population, their prevalence is controversial and etiology still debatable.

Methods. Two hundred and forty human spines (T4-L5) from a normal adult population were examined for the presence and location of SNs. To determine the exact position of SNs, each vertebral body surface was divided into 13 zones and 3 areas (anterior, middle, posterior).

Results. The total number of SNs found in our sample was 511: 193 (37.7%) were located on the superior surface and 318 (62.3%) on the inferior surface of the vertebral body. SNs appeared more frequently in the T7-L1 region. No association was found between the SNs location along the spine and gender, ethnicity and age. SNs were more commonly found in the middle part of the vertebral body (63.7%).

Conclusions. The frequency distribution of SNs varies with vertebra location and surface. The current results do not lend support to the traumatic or disease explanation of the phenomenon. SNs occurrences are probably associated with the vertebra development process during early life, the nucleus pulposus pressing the weakest part of the end plate in addition to the various strains on the vertebrae and the intervertebral disc along the spine during spinal movements (especially torsional movements).
Swing and Stance Time Asymmetry in Self–Selected and in Fast Walking Speed in Healthy Adults.
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Introduction: With all conditions equal, it is logical to assume that asymmetrical gait is slower than symmetrical gait. The characteristics of the relationship between the fastest attainable gait speed and gait symmetry have not yet been determined. Our purpose was to get insight into the relationship between asymmetry and gait speed.

Methods: To impose gait asymmetry a load of 3.0 kg was attached to the right leg above the ankle. Temporo-spatial gait variables were measured in 22 healthy volunteers (11 men), aged 27.2 (±3.1) years. Each participant was tested while walking on the GaitRite walkway under four randomly ordered conditions: 1) Self selected speed without load (SS) 2) Fast speed without load (F). 3) Self selected speed with the right leg loaded (SSL). 4) Fast speed with the attached load (FL). Three repetitions were performed per condition. Asymmetry index (SI), for "swing time" and "stance time" was calculated by 

\[(\text{R-L}/0.5*(\text{R+L}))*100.\]

Results: Gait speed during the SS, F, SSL and FL conditions was 1.4 (±0.04), 2.7 (±0.07), 1.4 (±0.04) and 2.6(±0.07) m/sec, respectively. Mean absolute symmetry index values (SI) for stance and swing times are presented in Table 1. The added load increased both swing and stance asymmetry. Since a positive index pointed to greater swing and stance time for the right loaded leg than for the left leg (and vice versa for a negative index), the number of subjects (n) with either a positive or negative index is also provided. The majority of the right subjects' swing time increased when loaded while stance time decreased in both speeds.

Conclusions: The findings are relevant for gait characteristics of patients with one lower limb pathology such as patients walking with a cast or brace. They point to an increase in swing time and decrease in stance time of the loaded limb; for short walking distance indoors, these changes do not appear to effect gait speed.

<table>
<thead>
<tr>
<th>Speed Condition</th>
<th>Swing SI (n)</th>
<th>Negative Swing SI (n)</th>
<th>Positive Swing SI (n)</th>
<th>Stance SI (n)</th>
<th>Negative Stance SI (n)</th>
<th>Positive Stance SI (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Selected</td>
<td>5.09 (1.2)</td>
<td>13</td>
<td>9</td>
<td>3.58 (0.70)</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Fast</td>
<td>4.27 (1.04)</td>
<td>11</td>
<td>11</td>
<td>9.9 (2.73)</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Self-Selected Loaded</td>
<td>8.13 (1.18)</td>
<td>3</td>
<td>19</td>
<td>5.14 (0.56)</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Fast Loaded</td>
<td>8.13 (1.55)</td>
<td>8</td>
<td>14</td>
<td>8.94 (1.49)</td>
<td>17</td>
<td>4</td>
</tr>
</tbody>
</table>

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Neck pain assessed in a virtual environment
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Purpose: 1. To develop a virtual environment that will provide an objective and reliable tool for the assessment of cervical spine motion. 2. To compare cervical kinematics of patients suffering from chronic neck pain with those of asymptomatic individuals.

Background: Neck pain is a common musculoskeletal complaint with a reported annual prevalence of 30%-50%. In absence of gold standard for CROM assessment, a variety of assessment devices and methodologies exist. Common to these methodologies, assessment of CROM is carried out by instructing the subjects to move their head as far as possible. However, these elicited movements do not necessarily replicate functional movements, which occur spontaneously in response to multiple stimuli. To achieve a more functional approach to cervical motion assessment, we have recently developed a VR environment in which electromagnetic tracking is used to monitor cervical motion while participants are involved in a simple yet engaging gaming scenario.

Methods. Cervical spine kinematic measures were collected from 25 symptomatic 42 asymptomatic individuals, using VR and conventional assessments. Statistical analysis of differences in between groups and methods was performed. Logistic regression analysis, using a single predictor, compared the diagnostic ability of both methods.

Results. Results obtained by both VR and conventional assessments demonstrated a significant motion limitation in the symptomatic group, with reduced range, velocity and fluency of motion. VR measures showed greater sensitivity than conventional measures. A single session exposure to VR resulted in a significant increase in ROM.

Conclusions. Neck pain was significantly associated with reduced range, velocity, and fluency of cervical motion, as was demonstrated by the VR assessment method. The developed VR method is an objective, reliable and sensitive method of assessment, capable of significant ROM-enhancement.

Key Words: Assessment, neck pain, cervical range of motion, virtual reality, sensitivity, specificity, functional.
The Relationship between Children’s Sensory Modulation Abilities and Daily Activity Preferences

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Background: Participation is a key outcome of rehabilitation programs directed at assisting children and families to adapt to the challenges they face. One major determinant of participation is activity preferences. Activity preference may be influenced by various client factors, such as sensory modulation. Sensory modulation disorders (SMD) represent difficulties in responding to sensory input with behavior that is graded relative to the degree, nature or intensity of the sensory stimuli. This study aimed to compare daily activity preferences of children with SMD versus typical peers.

Methods: The sensory modulation abilities of 134 typical children, aged 6-11 years, were determined according to the total score of the Short Sensory Profile (SSP) which examines the effects of sensory modulation abilities on functional performance in daily life. The children were divided into two groups: 25 children with SMD but no other co morbidities and 109 typical peers. All children completed the Preference for Activities of Children (PAC) which is based on child's report and evaluates the preference to participate in daily activities performed outside mandated school hours.

Results: Children with SMD showed a significantly higher preference to participate in active physical activities. Among SMD children, lower energy level was correlated with higher preference to engage in self-improvement activities. Age and gender were also found to impact the relationship between sensory modulation abilities and child's daily activity preferences.

Conclusions: Sensory modulation abilities may impact children’s activity preferences. This raises the need to screen for children with SMD, in order to enhance therapy intervention when needed. In these cases, intervention should refer to activities that are meaningful to the child, in order to better meet child's needs, facilitate his/her engagement in intervention, enhance child's participation in daily living as well as child's well-being.

Key words: sensory modulation, participation, children, activity preference.
The meal-maker: a functional virtual environment for children with cerebral palsy

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Background & Objectives: The literature highlights the potential of virtual reality (VR) as a modality for increasing motivation, self-efficacy, and motor control in children and adolescents with CP. VR enables dynamic interaction between child, environment, and active engagement in functional activities using a highly motivating, user-friendly and safe way. The present work describes a new virtual environment (VE), the Meal-Maker (MM), created to evaluate and treat functional performance in a familiar context (kitchen). The usability of the MM, including its effect on user's enjoyment and perceived exertion was examined.

Methods: Twenty-two typically developed children and five children with CP experienced four VEs including two games (Birds & Balls, Soccer), a shopping environment (VMall) and the MM. The Short Feedback Questionnaire for children (SFQCHILD) and the Borg scale of perceived exertion were completed by the subjects after each VE. Performance outcomes (e.g., total time, errors) were also analyzed.

Results: There were significant differences between VEs in the total SFQCHILD (F (3, 63) = 27.11, p< .001) and perceived exertion (F (3, 63) = 64.09, p < .001) of the control group. Children reported feeling significantly more success (F (3, 63) = 13.74, p< .001) and control (F (3,60)= 11.99, p< .001) in the MM than in the soccer game. Children rated the MM and VMall environments as significantly less difficult than Birds & Balls and Soccer was rated as being significantly more difficult. A similar trend was noted among the children with CP. MM was found as equally enjoyable as all other VEs for both groups. No significant differences were seen in performance outcomes between the groups.

Conclusions: Results support the potential of the MM as a user-friendly and enjoyable virtual environment that appears to be suitable for children with CP.

Keywords: cerebral palsy, video capture virtual reality, functional virtual environment.
Higher education is the most significant variable that explains participation of people with disabilities in employment and society. The inclusion of people with disability is enabled due to accessibility of higher education institutions.

The aim of the research is to examine the relationship between academic, physical, social, and technological accessibility to higher education, and academic and social participation and achievements of students with disabilities.

Methods: The research compared 170 students with physical, sensory, and mental disabilities with matched 156 students without disabilities. The main research tools were: a) College Student Experiences Questionnaire; b) Human, academic, and physical accessibility for students with disabilities; c) Assessment of Computer Task Performance; d) Independence in self-care; e) Health status.

Results: Only few differences were found between the two groups of students in their activities. However, students with disabilities had fewer experiences with computers, devoted more time to their studies, and had difficulties meeting deadlines. Students, who used computers, were more involved in academic and social activities. Students' participation varied according to different types of disabilities. In addition, correlations were found between available accessibilities and satisfaction, and between economic support and social participation.

Discussion: Academic achievements and participation of students with disabilities compared with typical students enables to uncover the students with disabilities experiences and needs in higher education. Furthermore, The importance of using computers for success and inclusion in higher education is evident .

Conclusions: The study presents evidence based recommendations and requirements to enhance academic, physical and human accessibility, including promoting awareness and knowledge of academic and administrative staff, in order to comply with legislation and to give equal opportunity to the growing group of consumer in higher education - students with disabilities.
Both traditional and peripheral:  
Women's transportation needs for employment purposes  

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This work looks at the impact of inadequate provision of public transportation services for employment opportunities for women from traditional, small and peripheral communities. Since in the developed world home and work are usually separated, how employees cope with the burden of commuting greatly determines the extent of their accessibility to paid work. For women this is especially crucial: first, traditional domestic care-giving confines women to the home environment and hence their mobility and employment choices are limited; second, disadvantage status in the labor market – notably lower income, gender segregation and part-time jobs – restrains women's use of private cars which further limits their access to paid jobs, especially to jobs that match their human capital characteristics. Consequently women who seek employment particularly depend on public transportation services. Their dependency is greater in rural-peripheral areas where employment opportunities are scarce, and this is intensified in traditional societies, especially in those where strict social control disapproves women's independent mobility.

Based on in-depth interviews, we explore the occupational experience of 15 highly educated women from the Druze village Maghar, who are unable to find jobs that match their human capital characteristics. Results indicate that the lack of adequate public transportation impede their ability to overcome the restricting social order, excluding them of the benefits of their educational and occupational credentials in the labor market. The respondents expressed their frustration from what they perceived as a "life sentence" of unfulfilled occupational and economic potential.

Keyword: public transportation services, employment opportunities, periphery, Druze women.
Intergenerational relations and use of services: Arab and Jewish elderly in Israel

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Elder care in many societies is a welfare-state-family cooperation. In countries that implemented a generous welfare social care services there is a concern whether state services will be a risk to family help and support. Research suggests however, that in generous welfare state as Norway, the state does not replace family help but rather complement it (Daatland & Lowenstein, 2005). The current paper adds to this debate by focusing on the ethnicity of elderly parents and their adult children. Three hundred and sixty two interviews were conducted with Arab and Jewish elderly 60 and over who live in the community. The dependent variables were family help (emotional, financial, household chores, important life decisions, and personal care). Independent variables included public services and socio-demographic attributes. Logistic regressions indicted that use of public services enhanced help with personal care and household chores in the Arab population whereas use of public services enhanced financial assistance and help with important life decisions in the Jewish population. The Arab adult children are willing to utilize formal services but continue to provide personal care and household activities. The Jewish adult children take the role of “care manager”. This involves decisions about the care and finance concerning elderly parents. These data contribute to the debate about family-welfare state support suggesting that the family-welfare state mix is partially dependent on ethnicity and the kind of family help.

Key words: Caregiving, Elderly, Israel, Arabs, Jewish, Welfare Services.
Tradeoffs between productivity and service quality:
The moderating role of frontline workers’ empowerment, burnout, and service climate
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Service organizations care both for high productivity and high quality in service operations. Although several sources suggest that an emphasis on productivity can negatively impact service quality and customer satisfaction, few studies have empirically examined the productivity/quality tradeoff and the factors affecting it. This study focuses on three variables known to affect frontline employees’ interaction with customers: empowerment, burnout, and service climate, hypothesizing that these variables will moderate the relationship between productivity and service quality. We combined data from three sources regarding a sample of 139 front-line workers at a call center of a large credit-card company: (1) productivity data about the volume of calls handled by workers during workshifts over a three-month period; (2) satisfaction ratings of 773 customers served by these workers, surveyed by phone after they called the call center (on average 5.6 customers per worker), and (3) workers’ perceptions of empowerment, burnout, and service climate, measured by questionnaires. As expected, a negative relationship was found between productivity and quality: customer satisfaction was lower when productivity (i.e., number of calls handled) was high, and higher when productivity was lower. However, the negative relationship between productivity and quality was found to be moderated by the three psychological variables. For example, when productivity was low, workers with high service climate perceptions reached higher levels of customer satisfaction than when productivity increased, whereas the satisfaction of customers served by workers with low service climate was not affected similarly by the number of calls handled by workers.

The results show that productivity has a differential impact on service quality, depending on workers’ orientations to service. The findings have theoretical implications for the literature on psychological aspects of worker behavior and effectiveness, and point to managerial recommendations.

Key words: Service quality, Productivity, Service climate, Empowerment, Burnout.
Organizational Climate and Attitudes toward Work as Factors Influencing the Workers with Intellectual Disability Working in Sheltered Employment Centers

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The aim of this study is to link organizational measures taken from the organizational behavior field with measures from the occupational rehabilitation field. The study claims that utilizing practicable organizational tools found to be effective for measuring and improving many organizations, can also enhance occupational rehabilitation in sheltered employment centers. In this study, we developed an occupational climate questionnaire that is suitable for sheltered employment centers, to investigate the relationship between sheltered employment centers' organizational climate and leadership styles of sheltered employment center directors, and perceptions, attitudes and values regarding the work of the mentally challenged working in sheltered employment centers. The organizational research tools were a leadership questionnaire and a climate questionnaire. To examine the effect of leadership and climate, we used tools from the rehabilitation field for people with disabilities, which were found to be suitable for the mentally challenged population (work values questionnaire and self-efficacy questionnaire). The occupational climate questionnaire was found to be reliable, and factor analysis showed the questionnaire to be compatible with findings of other climate questionnaires. In addition, correlations were found between the climate questionnaire and leadership patterns. Correlations were found also between leadership patterns and internalization of work values and sense of self-efficacy amongst the sheltered employment center workers. The more the sheltered employment center staff tended to perceive the director as having an active leadership pattern, the more harmful this was to the workers' sense of self-efficacy. The directors' perception of their own leadership pattern did not have a significant influence on the sheltered employment center workers' sense of self-efficacy. Thus, it seems that the sense of self-efficacy amongst sheltered employment center workers is not influenced by the organizational climate. An interaction was found between the leadership and organizational climate dimensions in their influence on sense of self-efficacy or internalizing work value.

Keywords: organizational climate, leadership styles, work values, self-efficacy.