

**the
Canadian
Health
Psychologist**

**le
psychologue
canadien
de la santé**

Fall/automne 1995

Vol. 3 No. 2



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**Newsletter of the Health Psychology Section
of the Canadian Psychological Association
Bulletin de la Section de psychologie de la santé
de la Société canadienne de psychologie**

The Canadian Health Psychologist

Editor: Michael Murray

The Canadian Health Psychologist is produced by the Health Psychology Section of the Canadian Psychological Association and distributed to all members of that section. It is designed to serve as a discussion forum for any issues of relevance to psychologists working in the area of physical health. The editor welcomes review articles, research and intervention reports, reports of events, letters, news of members, book reviews and announcements. Articles should ideally be no longer than 2500 words with about ten references. They should preferably include an abstract in English and in French. If possible, articles should be submitted on a computer disk.

The opinions expressed in this newsletter are strictly those of the authors and do not necessarily reflect the opinions of the Health Psychology Section or of the Canadian Psychological Association, its officers, directors or employees. This is in no way affected by the right of the editor to edit all copy published.

The newsletter is produced two times a year, Spring and Fall. The deadlines for submission of articles are Spring issue: 31 March; Fall issue: 31 October.

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Le psychologue canadien de la santé

Rédacteur en chef: Michael Murray

Le psychologue canadien de la santé est produit par la section de psychologie de la santé de la société canadienne de psychologie et est distribué à tous les membres de cette section. Son but est de servir comme un agent de discussion pour des psychologues qui travaillent dans le domaine de la santé physique. Les articles revues, rapports de recherche et d'intervention, rapports d'événements, lettres, nouvelles des membres, des comptes rendus et des annonces sont le bienvenue chez le rédacteur pour soumission. Idéalement, les articles ne devraient pas dépasser 2,500 mots avec 10 références ou moins et, si possible, incluent un résumé en français et en anglais. Aussi, si possible, les soumissions devraient être présentées sur une disquette.

Les opinions exprimés dans ce bulletin son strictement ceux de l'auteur et ne reflètent pas nécessairement les opinions de la section de psychologie de la santé ou la société canadienne de psychologie, ses officers, ses directeurs, ou ses employés. Le rédacteur a le droit d'éditer toutes soumissions.

Ce bulletin est publié deux fois par année, c'est-à-dire en printemps et en automne. Les dates limités de soumission sont comme tel: printemps: le 31 mars; automne: le 31 octobre.

Les individus qui ne sont pas membres avec la section de psychologie de la santé s'abonner en envoyant 15\$ (payable à SCP section de psychologie de la santé) à la secrétaire/trésorier

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Editorial/Éditorial

At this time of the year when people traditionally exchange gifts I am pleased to present this issue of the Canadian Health Psychologist. I am sure it contains a range of interesting articles for you to enjoy over the holiday season.

I am particularly pleased to include a copy of the paper which was awarded this year's student prize. This paper was selected at the Annual Convention in Charlottetown. Over 40 students presented papers in health psychology and the judges found it difficult to reach a decision because of the high overall quality. However, I am sure that you will agree that the paper by Mesfin Mulatu was a deserved winner.

This issue also contains an interesting article on some research on sleep problems among children with diabetes. The research was conducted by a team of health psychologists in Calgary. This article is followed by a short summary of a theoretical model of health behaviour developed by Ralf Schwarzer. Dr. Schwarzer, who is from Berlin, was recently visiting this country. Hopefully, we will have the opportunity of hearing him speak at a future convention.

At a time of change in the health system and in the opportunities for psychologists it is useful to consider how health psychologists work in other countries and the training opportunities in this country. The articles by Paul Bennett and Gordon Butler explore these issues.

The next issue will be out in the Spring. It will contain a special section on AIDS research as well as our annual listing of publications. If you would like to submit material to either of these you should get in touch. Until that issue, seasons greetings.

C'est à ce temps de l'année où les échanges de cadeaux sont de coutume, qu'il me fait plaisir de présenter cette publication du Psychologue canadien de la santé. Il contient, j'en suis certain, une variété d'articles intéressants que vous saurez apprécier tout au long du temps des fêtes.

Il me fait particulièrement plaisir d'inclure une copie de l'article qui a remporté le prix étudiant cette année. Cet article a été sélectionné au congrès annuel à Charlottetown. Plus de 40 étudiants avaient présenté des articles traitant de psychologie de la santé et les juges ont eu de la difficulté à décider du gagnant étant donné la haute qualité des articles soumis. Néanmoins, je suis certain que vous serez d'accord que l'article écrit par Mesfin Mulatu mérite bien le prix.

Cette publication contient aussi un intéressant article traitant de recherche sur les problèmes du sommeil chez les enfants diabétiques. Une équipe de psychologues spécialistes en psychologie de la santé était en charge de cette recherche. Cet article est suivi d'un bref résumé d'un modèle théorique sur les comportements face à la santé développé par Ralph Schwarzer. Le Docteur Schwarzer vit à Berlin et était récemment de passage dans notre pays. Espérons que nous aurons la chance de l'entendre parler à une de nos prochaines conférences.

Alors que le système de services de santé et que les ouvertures pour les psychologues sont en plein changement, il est utile de considérer comment les psychologues de la santé travaillent dans d'autres pays et quelles sont les diverses possibilités de formation dans notre pays. Les articles écrits par Paul Bennett et Gordon Butler explorent ces questions.

La prochaine publication paraîtra au printemps. Elle contiendra une section spéciale sur la recherche sur le Sida de même que notre liste annuelle de publications. Si vous désirez soumettre du matériel sur un de ces sujets, veuillez communiquer avec moi. D'ici là, Joyeuses Fêtes.

LAY BELIEFS ABOUT THE CAUSES OF PSYCHOLOGICAL AND PHYSICAL ILLNESSES IN ETHIOPIA

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(Editors note: This paper was the winner of the prize for the best student paper in Health Psychology presented at the 1995 Convention of the Canadian Psychological Association, Charlottetown.)

Abstract The dimensions of lay people's illness causation beliefs and the relationships of these beliefs with treatment choices, attitudes towards, and demographic characteristics were examined in a community sample of 450 adults (mean age=34 years; 54.7% males) from Bahir Dar town, NW Ethiopia. For the description of each of the 6 psychological and 3 physical illnesses, 50 participants responded to a question referring to causation (28 items), cure/treatment (7 items) and attitude toward patients (10 items). Factor analysis of the causal beliefs resulted in four interpretable dimensions: Psychological Stressors, Supernatural Retribution, Biomedical Defects, and Social Disadvantage. These factors were consistently obtained even when separate analysis for psychological and physical illnesses were performed, and meaningfully related to cure/treatment beliefs, attitudes, and sociodemographic characteristics. Supernatural Retribution causation beliefs about psychological illnesses were, for instance, positively correlated with age, favorable attitude to patients, and to choice of traditional treatments such as prayer, holy water, or consulting traditional healer. Moreover, Psychological Stressors and Supernatural Retribution causation beliefs, religious and family support/home care treatment methods, and unfavorable attitudes were strongly associated with psychological illnesses than physical illnesses. The relevance of the results to health service and education are discussed.

Résumé: Les dimensions des croyances populaires concernant la maladie, le rapport entre ces croyances et la sélection de traitements, diverses attitudes envers les malades ainsi que diverses caractéristiques démographiques furent examinés dans un groupe de 450 adultes (âge moyen = 34 ans; 54.7% hommes) provenant de la communauté de Bahir Dar en Ethiopie du Nord-Ouest. 50 participants ont répondu à des questions concernant les causes (28 questions), les cures/traitements (7 questions) et les attitudes vis-à-vis les patients (10 questions). Une analyse factorielle des croyances au sujet des causes de maladie a produit quatre dimensions interprétables : le stress psychologique, le châtement surnaturel, le défaut biomédical et le désavantage social. Ces facteurs furent obtenus de façon constante, même lorsque les analyses furent appliquées sur les maladies psychologiques et physiques séparément. Ces facteurs ont aussi conservé leurs rapports significatifs avec les croyances au sujet des cures/traitements, les attitudes envers ces patients et avec les caractéristiques démographiques. Par exemple, la croyance au châtement surnaturel en ce qui concerne les maladies psychologiques a une corrélation positive avec l'âge, une attitude favorable envers le patient et la sélection d'une forme de traitement traditionnel tel que la prière, l'eau bénite ou la consultation concernant le stress psychologique et le châtement surnaturel, le support et traitement religieux et en famille de même que des attitudes défavorables

étaient plus fortement associés avec les maladies psychologiques qu'avec les maladies physiques. Les implications des résultats sur les services de santé et l'enseignement sont discutées.

The role of cultural factors in the understanding of both health and illness has increasingly been recognized by researchers and clinicians in recent decades. Every culture provides an interpretive framework with which experiences are evaluated, understood and predicted (Hetman, 1990; Patel, 1995). In other words, culture plays a role in the perception of illness, pain, and misfortune; it also influences health seeking behaviors and health service utilization including the choice of treatments and healers.

The study of lay theories of physical and psychological illnesses is important at least for three reasons. First, it provides pertinent information in such areas of scientific interest as perceived functions of the body, the mind, and the relationship of the person with nature and supernatural phenomena (White and Marsella, 1982). Second, it provides insight into the appropriateness of current health services and intervention programs. Finally, knowledge of lay theories of illnesses would help to conduct cross-cultural studies which are comparable while still being culturally sensitive (Patel, 1995).

Several systematic investigations about lay theories of physical and psychological illnesses have been reported for developed countries (e.g., Furnham & Rees, 1988). However, systematic studies looking at the explanatory models of health or illness in Sub-Saharan African (SSA) countries, including Ethiopia, are lacking. Those available reports tend to be anthropological in origin targeted at beliefs about illnesses in general and/or analyzed at the level of the larger ethnic or cultural group such as the Amhara of Ethiopia (e.g., Levine, 1965), and Hutu of Rwanda (Taylor, 1992).

In general, anthropological studies reported on health belief systems of SSA countries, although informative, are limited in number of ways. First, these studies place greater emphasis on the supernatural causation beliefs to the neglect of physical and psychosocial factors (Patel, 1995; Yoder, 1981). This is particularly so with regard to mental illnesses. In Ethiopia, for instance, mental illnesses have been attributed to various forms of supernatural agents including possession with evil spirits (e.g., Satan or Jinni), punishment by deities (e.g., Zar) for missed rituals or transgression, evil eye (**Buda**), spells of sorcerers, curse of elderly or parents for neglect or misbehavior, and poisoning or bad medicine (see reviews by Kortmann, 1987; Jacobson & Merdasa, 1991). The role of the physical environment, social relationships, and psychological factors are given little attention, despite evidence stressing their significance in illness explanatory beliefs of SSA cultures (Patel, 1995; Yoder, 1981). In addition, anthropological studies provide limited information regarding the extent of variation in beliefs among different sociodemographic groups. For instance, a recent report indicated that causal beliefs about psychological illnesses in Ghana depended on the respondents' level of education, income, and acculturation (Ofori-Atta & Linden, 1995; Fosu, 1981).

Moreover, the relevance of health beliefs to utilization of the available modern and traditional health services has not been systematically examined. Although anthropological studies often relate supernatural beliefs about causation of mental illnesses to the choice of magico religious treatments, there is evidence suggesting that beliefs about causation and choice of treatment may not necessarily correspond (Patel, 1995; MacLachlan, Nyirenda, & Nyando, 1995).

The objectives of the present investigation were twofold. First, it was aimed at examining the dimensions of lay beliefs regarding the causes of psychological illnesses. For comparison purposes, beliefs about physical illnesses were also explored. Second, this study was also aimed at determining the relationships amongst causal beliefs, treatment choices, attitudes toward patients and sociodemographic characteristics of respondents.

Method

Background

This study was conducted in the Northwestern Ethiopian town of Bahir Dar, a growing capital of the recently formed Region 3 or the Amhara Region. It has a population of about 120,000 people of whom the predominant majority are of the Amhara ethnic group and belonged to the Ethiopian Orthodox Church. A significant

proportion of the people are also followers of Islam. Likewise, the Agaw and Tigre ethnic people constitute a significant minority.

Because of its status as a regional capital, Bahir Dar has various governmental and non-governmental institutions, including colleges, a hospital and a health center. The town is also conveniently located near some of the major natural and historical tourist attractions of the country such as the Blue Nile Falls (Tis Issat) and the ancient island monasteries of Lake Tana (the source of the Blue Nile).

Sampling and Sample

A total of 450 people participated in this study. This sample size was predetermined such that 50 participants would respond to each of the nine illness conditions for which data were collected. The town has about 10,000 households variably distributed among 17 kebeles, or the smallest urban administrative zones. Beginning with a random house number, approximately every 20th household was selected until the specified proportion was obtained for a particular kebele. One individual, usually the husband or the wife, was interviewed from each selected household. When both husband and wife were present, the husband was interviewed in order to respect the tradition that maintains the husband as head of the household. In the absence of head of household, the next household was visited.

Measures

Nine vignettes describing a person with an illness and a 3 page structured interview format were used to assess illness causal beliefs, treatment choices, and attitudes to patients. The interview format was prepared based on the literature (e.g. Furnham & Rees, 1988) and responses of community and college volunteers (n=40) to open ended questions about the causes and cures of mental and physical illness. The following is a brief description of the contents of the study material.

1. Illness Vignettes. Nine separate illness vignettes were prepared describing a person with the symptoms of schizophrenia, depression, anxiety disorder, alcoholism, mental retardation, epilepsy, tuberculosis, leprosy, or poliomyelitic paralysis. The vignettes were prepared based on the core symptom descriptions of these illnesses in the International Classification of Diseases-Tenth Revision (ICD-10, WHO, 1992). Each respondent was read only one of the vignettes and asked to respond to the belief and attitude questions by referring to the illness described to him or her.

2. Illness Causal Beliefs. Respondents were asked to rate the degree of importance of a list of 28 beliefs as possible causes of the illness in question. Included in this measure are items referring to spiritual, physical, and psychosocial causes of illnesses. The response categories were 0=not important, 1=somewhat important, and 2=very important. The internal consistency of items was high ($\alpha=.86$).

3. Illness Cure Beliefs. The perceived degree of importance of seven sources of treatment or cure for the illness were also rated on a three point scale in a similar way as causal beliefs were rated (0=not important, 1=somewhat important, and 2=very important). Included in this scale were religious prayer, holy water, traditional healer, traditional medication, professional consultation, modern medication, and family support or home care. Internal consistency was low ($\alpha=.56$) but was considered acceptable considering the number of the items.

4. Attitude to people with Illness. 10 questions were asked to determine the feelings associated with people who have those health problems. The items (e.g. Will you be willing to be a friend with a person with this problem?) had a 0=no or 1=yes response format. Internal consistency for the attitude items was very high ($\alpha=.87$).

5. Sociodemographic Characteristics. The respondents' age, sex, educational level, family monthly income, ethnic group, and religious affiliation were also recorded.

Results

54.7% of the respondents were males, the rest being females. Age ranged from 17 to 70 with mean age of 34 years. 49.8% of the respondents had a high school or better educational level while the remaining had either no or some elementary education. Orthodox Christians constituted 77.6%; the remaining were Moslems. 81.3% belonged to the Amhara ethnic group; the remaining were members of Agaw and Tigre ethnic groups.

A series of principal component analysis (PCA) with varimax rotations was performed on the responses to the 28 causal belief items separately for psychological illnesses (schizophrenia, depression, anxiety disorder, alcoholism, mental retardation, and epilepsy vignettes combined; $n=300$) and physical illness (tuberculosis, leprosy, and poliomyelitic paralysis combined; $n=150$). The results of both PCAs indicated similar factor structures. As a result another PCA was performed on the combined sample ($n=450$). Four interpretable factors accounting for 53.8% of the total variance were obtained using the scree test criterion.

Factor 1, Psychological Stressors, included such causal beliefs as excessive worrying, loss of loved ones, conflict with family, conflict with friends, much education or thinking, much work load, and poverty. The factor had internal consistency of .90 and accounted for 25% of the variance. Factor 2, Supernatural Retribution, included magico-religious causal beliefs such as punishment by God, bad luck or ill fate, sorcerer's spell, possession by Satan or jinni, curse of parents or elderly, and punishment by ancestral spirits. This factor had internal consistency of .79 and explained 14% of the variance. Factor 3, Biomedical Defects, included such items as infection with germs, chronic illness, lack of nutrients, and childhood abuse or neglect. It had an internal consistency of .77 and explained 8.5% of the variance. Factor 4, Social Disadvantage, included poor living, poor working environment, lack of formal education, and being around people with illness in question. Internal consistency for this factor was .60; it accounted for 6.3% of total variance in causal beliefs.

Differences in the degree of importance accorded to causal beliefs about psychological illnesses were found with respect to demographic characteristics. Younger subjects (17-34 years old) tended to consider Social Disadvantage as a more important causal dimension than older respondents (35-70 year old), $F=7.11$, $p<.01$. Less educated respondents (illiterate to grade 8) respondent found Supernatural Retribution more important than better educated ones (high school or better), $F=38.16$, $p .001$. Amhara respondents rated Supernatural Retribution as more important than non-Amhara respondents, $F=8.09$, $p .01$. On the other hand, non-Amhara respondents found Psychological Stressors more important than Amhara respondents, $F=3.82$, $p .05$.

Correlation coefficients were computed to determine the degree of association amongst causal belief dimensions, treatment choices, attitudes towards patients, and demographic characteristics. Beliefs in Psychological Stressors causation of psychological illnesses were significantly correlated with family support/ home care and consulting professionals. Such causal beliefs were also more likely to be held by better educated respondents. Supernatural Retribution beliefs were associated with the choice of religious prayer, holy water, consulting traditional healers, and with use of both traditional and modern medicine. Beliefs in the Biomedical Defects causation of psychological illnesses were significantly positively correlated with the

importance accorded to use of traditional medication, and family support/home care. This belief dimension was inversely correlated with religious prayers the as mode of treatment and positively associated with better educational levels. Social Disadvantage beliefs were positively related to choice of professional consultation and family support/home care but inversely correlated to the use of holy water, consulting a traditional healer, and use of traditional medicine. Table 1 presents the results of the correlational analysis.

The differences between illness categories in degree of importance associated with causal belief dimensions, treatment or cure choices, and attitudes to

patients were examined using t-tests for unequal sample sizes. Psychological Stressors ($t=20.50$ $p<.001$) and Supernatural Retribution ($t=3.36$, $p<.05$) causal beliefs were attributed more to psychological illness than physical illnesses. Other causal beliefs did not show significant differences. Higher mean scores on religious prayer ($t=2.35$, $p<.05$) and family support/home care ($t=10.41$, $p<.001$) were found for psychological illnesses than physical illnesses. On the other hand, modern medication ($t=10.19$, $p<.001$) and consulting a traditional healer ($t=2.99$, $p<.01$) were endorsed more to physical illnesses than to psychological illnesses. Moreover, respondents had more favorable attitudes towards people with physical than psychological illnesses ($t=2.62$, $p<.01$).

Table 1 Correlation amongst causal beliefs, treatment choices, attitude to patients, and demographic characteristics for psychological illness (n=300).

Treatment, Attitude, and Demographic Factors	Causal Belief Dimensions			
	Psychological Stressors	Supernatural Retribution	Biomedical Defects	Social Disadvantage
Religious prayer	-.29***	.48***	-.48***	.03
Using holy water	-.19***	.48***	-.03	-.28***
Modern medicine	.04	.13*	.02	-.09
Consulting professional	.21***	-.08	-.02	-.28***
Consulting healer	-.17**	.24***	.08	-.33***
Traditional medicine	.01	.12*	.24***	-.26***
Family support/home care	.29***	-.15**	.22***	.19***
Attitude to patients	-.05	.37***	-.09	-.05
Respondent's age	.02	.10	.11	-.13*
Respondent's education	.12*	-.43***	.14*	.07
Respondent's income	.01	-.24***	.01	.03

Note: * $p<.05$. ** $p<.01$. *** $p<.001$.

Discussion

Beliefs about the causes of psychological and physical illnesses were found to be multidimensional among a sample of community respondents in North Western Ethiopia. Four dimensions of lay causal beliefs were identified: Psychological Stressors, Supernatural Retribution, Biomedical Defects, and Social Disadvantages. The results demonstrated that theories of illness causation in Sub-Saharan African cultures are not limited to magico religious agents as might be expected from anthropological studies. In fact, considering the proportion of the variance accounted for by each dimension, psychological stressors may have a prominent role in the theories of illness etiology in general, and psychological illnesses in particular. Specifically, Psychological Stressors and Supernatural Retribution were rated to be more important causes for psychological than physical illnesses. This is consistent with findings of a Nigerian study where psychosocial causes for mental illness were given more importance than supernatural factors (Ileckukwu, 1988). In support of the anthropological reports (e.g. Kimani, 1981), supernatural factors were found to be the second most important causal factors for psychological and physical illnesses in the present study.

It was also found that the importance of causal belief dimensions varies with demographic characteristics. For instance, younger respondents placed more importance on social factors than did older respondents. Likewise, less educated people considered supernatural causes as more important than better educated ones. These results are consistent with a recent study where beliefs about causes and choices about treatment for mental illnesses in Ghana were related to the index of social change which was defined, among other things, by the extent of acculturation (Ofori-Atta & Linden, 1995). Acculturation to the Western biomedical model of illness or system of thought through education, media, or direct contact with expatriates may have affected the beliefs of younger and better educated respondents in the present study.

Different causal beliefs were associated with different treatment choices. As expected, supernatural causal attributions to psychological illnesses were mainly related to religious and traditional forms of treatment, although such attributions were also related to other treatment options including modern health care. The

findings underline the importance of promoting a pluralistic health care system where the traditional sector fulfils psychosocial needs while the modern sector meets the biological needs of the patient (Ataudo, 1985).

Attitude to patients varied with illness categories and causal attributions. Overall, patients with psychological illnesses were viewed more negatively than patients with physical illnesses. This, however, seems to be dependent on attribution of causality. Beliefs in supernatural causation of psychological illnesses was associated with favorable attitude towards the patients. This can partly be explained by localization of the source of the problem in external factors which frees the patient from being responsible for the illness and usually requires family and friends to work for reconciliation with the perceived supernatural agent (Kortmann, 1987).

In sum, the study demonstrated that community beliefs about the causes of psychological (and physical) illnesses are multidimensional, and are systematically related to treatment choices, attitudes to patients, and sociodemographic characteristics. Health service or education planning in Ethiopia needs to recognize and promote a pluralistic health care system where the biopsychosocial needs of the community can be fulfilled.

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SLEEP BEHAVIOUR OF CHILDREN WITH DIABETES

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ABSTRACT

The sleep behavior of 27 children with Type 1 diabetes was compared with their non-diabetic siblings using the parent-report Children's Sleep Behavior Scale. Strong trends in the direction of more disturbed sleep for the diabetic children were found, and the frequency-of-bathroom-visits item reached statistical significance. Parentally reported nocturnal hypo- and hyperglycemia were significantly related to more disturbed sleep. Trends associating parentally reported nocturnal hypoglycemia with greater difficulty in morning awakening, and parentally reported nocturnal hyperglycemia with increased bed-wetting, were also found.

RÉSUMÉ

Le sommeil de 27 enfants diabétiques de Type I fut comparé avec le sommeil de leurs frères et soeurs en utilisant le rapport parental 'Children's Sleep Behavior Scale'. Les résultats ont démontré une forte tendance de troubles de sommeil pour les enfants diabétiques ainsi que de plus fréquentes visites à la salle de bains pendant la nuit, et ce, de façon significative. Les rapports parentaux de l'hypo- et hyperglycémie nocturne étaient aussi reliés de façon significative aux troubles de sommeil. Une tendance associant le rapport parental de l'hypoglycémie nocturne avec les difficultés de réveil le matin à été noté ainsi qu'une association du rapport parental de l'hyperglycémie nocturne avec une augmentation de la fréquence de l'énurésie nocturne.

Although it may be reasonable to presume that children with Type 1 diabetes, i.e. insulin dependent diabetes mellitus, experience greater fluctuation in nocturnal blood glucose levels than non-affected children, and that such fluctuation could in turn cause deviations in their sleep patterns, the question of such a relationship has apparently not been systematically studied. In fact, very little is known about the even more basic question of whether the sleep behavior of diabetic children differs from that of their non-diabetic siblings or peers. Standard references on Type 1 diabetes generally devote considerable attention to the question of how to maintain normoglycemia nocturnally, with particular concern

expended on nocturnal hypoglycemia because of its severe acute effects if untreated (Anonymous, 1980; Aynsley-Green & Soltesz, 1985; Unger & Foster, 1985). Grey (1992) has speculated that nocturnal hypoglycemia may be associated with an increased frequency of nightmares. Likewise, anecdotal reports led Brouhard (1987) to conjecture that nocturnal hypoglycemia was linked with an "anxiety or agitation phase" which precipitated night waking. On the other hand, the small body of research bearing on this issue, generated by Winter et al. (1979, 1981) and Shalwitz et al. (1990), might tend to suggest otherwise. These investigators concluded that nocturnal hypoglycemia in diabetic children is relatively common (in the order of 15 to 25%), asymptomatic, can persist for hours and is not associated with night waking. This is entirely consistent with similar adult sleep research (Bendtsen et al., 1992; Pramming et al., 1985) and Bendtsen's findings of increased theta and delta EEG activity in some diabetic patients whose nocturnal blood glucose levels fell below 2 mm/L might suggest that hypoglycemia is associated with deeper, rather than lighter, sleep. Whether such sleep is physiologically and restoratively identical to normally occurring theta and delta EEG activity during sleep is unknown.

Hyperglycemia, with its characteristic symptomatology of polydipsia and polyuria, might well be expected to result in frequently interrupted sleep. Clinical anecdotal evidence would certainly support this contention (Grey, 1992; Carne, 1975), however, a recent literature search produced little that would affirm this in a more scientifically acceptable manner. The preeminent reference text on children's sleep and sleep disorders offers an unsupported one-sentence claim that the incidence of nocturnal enuresis amongst children with Type 1 diabetes is increased (Nino-Mercia & Keenan,

1987). Consistent with this, Brink (1987) found that those diabetic children identified as having chronically poor glycemic control experienced a greater frequency of nocturnal enuresis than children in acceptable control. Hamilton, Mundier & Lister (1976) found a substantially increased incidence of nocturnal enuresis amongst newly diagnosed diabetic children above age five. Whether or not this declined to a normative level following initiation of conventional diabetes treatment was not reported. The presence of a characteristic pre-waking early-morning rise in blood glucose levels of children with Type 1 diabetes has been reported, but again, whether this was associated with an observable change in sleep behavior was not commented upon (Duncan et al., 1988). Impairment in cyclical penile tumescence during sleep has been detected in men having Type 1 diabetes (Schiavi et al., 1985), but this phenomenon has apparently not been studied in diabetic boys.

The present study represents a preliminary, exploratory venture, aimed at comparing the sleep behavior of diabetic children to that of their non-diabetic siblings. The only normative data currently available on children's sleep behavior is that derived from the Children's Sleep Behavior Scale (CSBS) (Fisher, Pauley & McGuire, 1989) described below. In particular, based on the review above, the items from the CSBS pertaining to frequency of night waking, bed-wetting and bathroom visits, were considered to have the highest likelihood of discriminating between diabetic children and their siblings. Additionally, it was hypothesized that those children with Type 1 diabetes whose parents reported a history of nocturnal hypo- and/or hyperglycemia would show the highest level of sleep disturbance.

METHOD

A. Subjects Subjects were 27 sibling pairs, between the ages of 6 and 18 years. One child in each pair suffered from Type 1 diabetes and the other child was the sibling closest in age to the diabetic child. None of the siblings had Type 1 diabetes. There were 16 females and 11 males with Type 1 diabetes and 10 female and 17 male siblings. For six of the sibling pairs, both children were male, in five pairs, both children were female, leaving 16 opposite gender pairings. As a group, diabetic children did not differ significantly from their siblings in terms of age ($t(53) = 0.35$, NS).

B. Measures A modified version of the 22-item Children's Sleep Behavior Scale (CSBS) (Fisher, Pauley & McGuire, 1989), a Likert-type rating scale for parents,

was employed in this study. The CSBS was developed to screen a broad range of specific sleep-related behaviors in middle childhood and pre-adolescence. For each item, the five possible responses are frequency estimations from zero through six or more times in the past six months. For this administration, a "don't know" response was added. Item test-retest reliabilities for the CSBS have been reported to be generally in the .70 range. The CSBS has been utilized previously in investigating the sleep behavior of children with attention deficit disorder (Dahl, et al., 1990).

Four additional questions derived from a sleep behavior study with pre-schoolers were also incorporated (Beltramini & Hertzog, 1983). Parents were asked to estimate sleep length, sleep onset latency, frequency of daytime sleepiness and frequency of night waking, the latter being intentionally redundant with the CSBS as a gross internal reliability check for the sleep behavior considered to have the highest probability of detecting diabetes-related effects. Since the question regarding sleep length duplicated an item from the CSBS, this item was dropped from the latter. As well, parents were asked to estimate the frequency with which they judged their diabetic child's sleep to be disturbed by hypo- or hyperglycemia.

C. Procedure To be potential subjects, children had to be between the ages of 6 and 18 years, to have at least one non-diabetic sibling, to have developed Type 1 diabetes after the age of five, and to have been diagnosed between 1987 and 1990. The Diabetes Clinic at the Alberta Children's Hospital, Calgary, Alberta, posted introductory letters to 119 families of diabetic children. This letter gave a brief explanation of the proposed study, and included a self-addressed stamped envelope for the parent to return to the investigators should they agree to receive a telephone call to learn more about the study. In total, 37 parents returned the form. Of those 37 replies, 22 parents eventually agreed to participate, 12 parents declined, and three parents had children who were either too old or too young to be included in the study. Subjects were also recruited through family physicians in Edmonton and Red Deer, Alberta. In total, 50 introductory letters were sent out to parents of children with Type 1 diabetes in both cities, the replies from which resulted in five more participant families.

RESULTS

Sign tests were conducted to compare the diabetic children with their siblings on the CSBS (see Table 1). Although this nonparametric statistic is not a powerful one, it was considered appropriate for the exploratory nature of this investigation. Because of the initial hypotheses, the sign tests comparing the items pertaining to night waking, bed-wetting and bathroom visits were one-tailed. All other sign test comparisons were two-tailed. Again, because of the exploratory nature of this study, Bonferonni corrections were not employed.

Table 1. Item and total scores on the Children's Sleep Sleep Behavior Scale

Item	Diabetic Children	Non-diabetic Siblings
Gone to bed willingly	3.5±1.2	3.3±1.5
Been a restless sleeper	1.7±1.8	1.3±1.5
Smiled while asleep	1.3±1.8	0.9±1.5
Awakened during the night	2.9±1.8	1.9±1.5 ^a
Talked while asleep	1.8±1.6	1.4±1.5
Been sleepwalking	0.1±0.6	0.0±0.0
Sat up while in bed asleep	0.4±0.9	0.5±1.1
Grinding teeth while asleep	0.4±1.2	0.3±1.0
Laughed while asleep	0.3±0.6	0.1±0.3
Had a frightening dream	1.4±1.4	1.0±1.3
Repeated actions while asleep	0.1±0.4	0.0±0.0
Wet the bed	0.6±1.2	0.4±1.1
Fallen asleep easily	3.5±1.0	3.3±1.4
Had a nightmare, forgot it	0.5±0.8	0.6±0.9
Afraid to sleep in the dark	0.4±1.0	0.7±1.4
Easy to wake in the morning	3.3±1.5	3.4±1.4
Terrified during a nightmare	0.4±1.1	0.3±0.9
Crying while asleep	0.2±0.5	0.0±0.0
Had a pleasant dream	3.4±1.2	2.9±1.3
Problems going to sleep	2.2±1.7	2.3±1.6
Got up to use the bathroom	2.9±1.2	1.8±1.7 ^b
TOTAL SCORE	26.3±9.9	23.3±8.6^a

^ap = 0.06, ^bp = 0.03; Mean ± SD

Children with Type 1 diabetes went to the bathroom significantly more often than their siblings during the night (p = .03), awakened somewhat more often during the night (p = .06) and also tended to have higher overall scores on the CSBS (p = .06). Not surprisingly, night waking was significantly correlated with going to the bathroom during the night for the diabetic children (r = .68, p < .001), but not for their siblings (r = .29, NS). No significant difference was

found for the bed-wetting item.

From the supplemental questions (Table 2), no significant differences were found for parental report of time spent asleep, daytime sleepiness or time to sleep onset between their children with Type 1 diabetes and their siblings. However, as reported earlier on the CSBS, parents reported that their diabetic children did wake up during the night more often than siblings (p = .03).

Table 2. Supplemental Item Scores

Item	Diabetic Children	Non-diabetic Siblings
Hours of sleep per night	8.7±1.1	9.0± 1.0
Minutes to fall asleep	15.6±9.0	17.7±10.4
Times awake at night	0.8±0.7	0.4± 1.0 ^a
Often tired during day	18.5%	11.1%

*p=0.06; Mean±SD

It was hypothesized that nocturnal hypo- and hyperglycemia would be related to sleep disturbance. From parental estimates of the number of times in the past six months these, 10 children were found to have had two or more episodes of nocturnal hypoglycemia. These 10 children had higher overall CSBS scores than their 10 siblings (p < .05). Likewise, 12 children with Type 1 diabetes were reported to have had two or more episodes of nocturnal hyperglycemia. These 12 diabetic children were awake significantly more often at night (p = .008), tended to wet the bed more often (p = .06), tended to go to the bathroom more often at night (p = .11) and had a significantly higher overall CSBS score (p = .022) than their siblings. There was some overlap in the children who were reported to have nocturnal hypo- and hyperglycemia. Five children who had two or more episodes of nocturnal hypoglycemia also had two or more episodes of nocturnal hyperglycemia in the past six months. When these five children were compared to their siblings, there was a trend for the children with Type 1 diabetes to awaken more often at night (p = .13) and to have higher total scores on the CSBS (p = .06).

To further explore the relationship between sleep disturbance and nocturnal hypo- and hyperglycemia, several post hoc comparisons were made between groups of diabetic children. In this analysis, t-tests were employed rather than sign tests because of the absence of subject matching and

unequal group sizes. Children with Type 1 diabetes who had been reported to have nocturnal hyperglycemia only ($n=7$) were compared to children with Type 1 diabetes who had been reported to have nocturnal hypoglycemia only ($n=5$), on scores from the CSBS. No significant differences emerged; however, the children who had been reported to have nocturnal hyperglycemia tended to awaken more often at night ($t(9)= 2.15, p =.06$). The children who had been reported to have nocturnal hypoglycemia only ($n=5$) were then compared to the remaining 12 children with Type 1 diabetes who had not been reported to have problems with nocturnal hypo- or hyperglycemia. These 12 children tended to be rated by their parents as being easier to wake up in the morning than were children reported to have experienced nocturnal hypoglycemia ($t(12)= -1.60, p =.14$). Such a trend was not evident in the case of nocturnal hyperglycemia when a similar comparison for parentally reported nocturnal hyperglycemia only was made ($n=7$). Instead, a trend was found for these 7 children to awaken more often during the night ($t(13) = 2.00, p =.07$) and to wet the bed more frequently ($t(14) = 1.77, p =.10$).

Unfortunately, because of the restricted sample size of this study and the fact that the norms for the CSBS have a tripartite age division by gender, conventional parametric statistical comparison of the data set from this study and that of the CSBS normative sample was precluded.

DISCUSSION

The statistical comparison of diabetic children with their siblings for the three targeted items on the CSBS revealed differences at, or approaching, the conventional .05 level of significance in the expected direction of increased night waking, bathroom visits and overall CSBS scores for the children with Type 1 diabetes. It is unfortunate that a restricted sample size precluded the further comparison of the sleep behavior data from this study with the CSBS normative data, since the presumption that the sleep behavior of the siblings in this study would approximate that of the general population, as represented by the CSBS norms, must remain that, a presumption. That no difference was found between diabetic children and their siblings on the bed-wetting item might be attributable to a detectable effect arising only for children in the poorest glycemetic control, and the present restricted sample size simply did not produce sufficient diabetic children of this type. In line with Brink's (1987) finding, parentally reported nocturnal hyperglycemia tended to be associated with increased bed-wetting frequency.

The hypothesis that a history of nocturnal hypo- and/or hyperglycemia would be associated with more disturbed sleep received a degree of confirmation. The trend for diabetic children whose parents reported problems with nocturnal hypoglycemia to be more difficult to rouse in the

morning was unexpected, but intuitively appealing on two grounds. First, there is the possibility that hypoglycemia occurring at the time of morning rising increases resistance to being awakened. Second, as parentally reported hypoglycemia was found to have a significant association with disturbed sleep, the inference that these children may at times have insufficient sleep appears quite reasonable. This raises the question as to whether children with Type 1 diabetes who experience nocturnal hypoglycemia might suffer from a related sleep deficit. It is somewhat puzzling that a similar trend associating morning waking difficulty with parentally reported nocturnal hyperglycemia was not detected, particularly given the tendency for such children to wake more often during the night than their hypoglycemic counterparts. This might suggest that quality, rather than quantity, of sleep is at issue here, however, the very small sample sizes of these two subgroups ($n = 5$ and 7) may simply have been insufficient to accurately reflect the presence or absence of generalizable differences.

Of course, reliance on the retrospective reports of parents substantially reduces the inferential force of any conclusion, and in this regard, a definitive account must await research which minimally employs continuous monitoring of both sleep behavior (including EEG somnography) and blood glucose levels. As well, the present hypo- and hyperglycemia analysis relied on the unproven assumption that parents are accurate identifiers of nocturnal hypo- and hyperglycemia and the behavioral concomitants associated with each. Nevertheless, the results of this preliminary investigation suggest that children with Type 1 diabetes suffer greater sleep disturbance than their non-diabetic siblings. It is hoped that the present study will enhance the prospect of this subject being regarded as a legitimate and deserving candidate for a more methodologically rigorous research initiative.

Acknowledgements

The authors wish to extend their thanks to the parents who participated in this study and the staff of the Diabetes Clinic, Alberta Children's Hospital.

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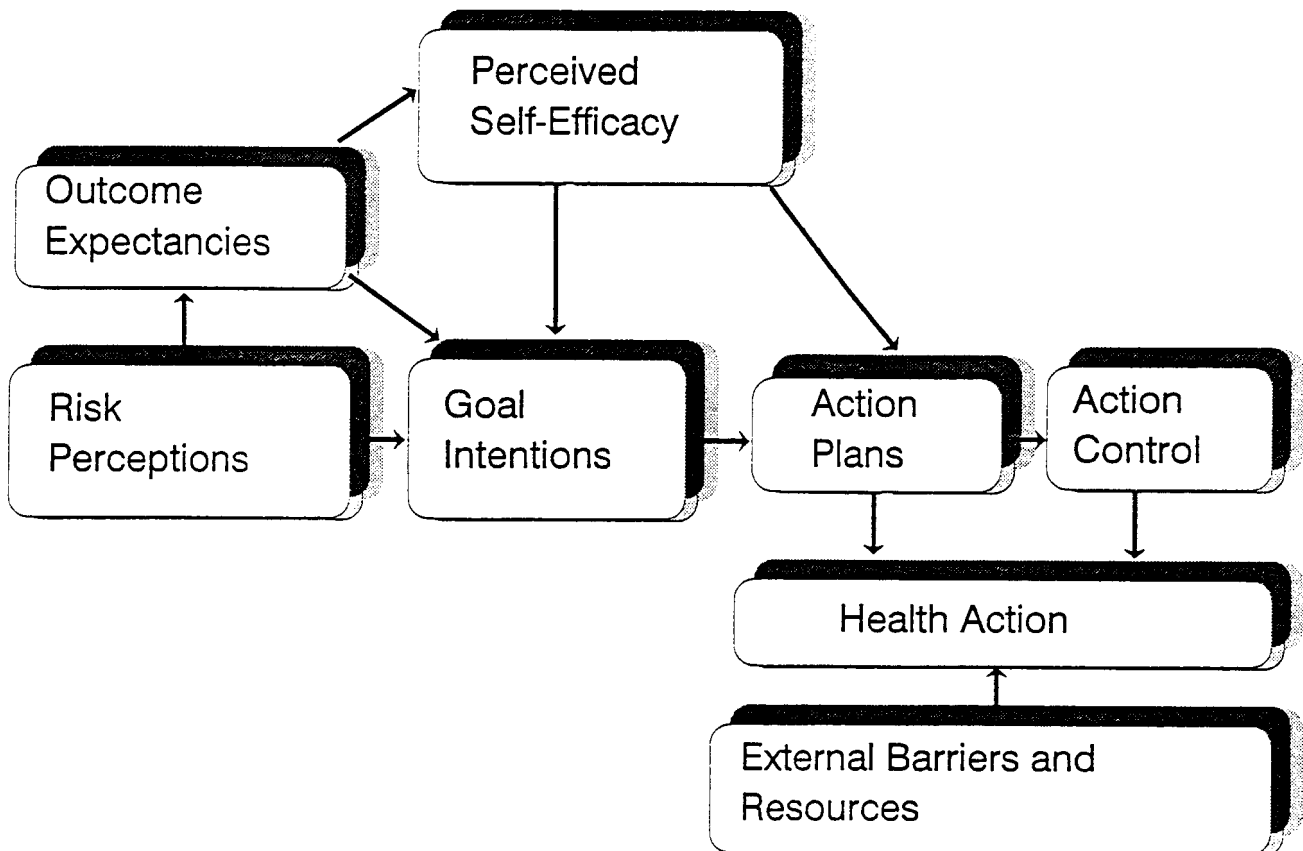
Modelling Health Behavior Change: The Health Action Process Approach

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In this brief article, I would like to describe a new health behavior model, called the Health Action Process Approach (HAPA). Its basic notion is that the adoption, initiation, and maintenance of health behaviours must be explicitly conceived as a process that consists of at least a motivation phase and volition phase. The latter might be further subdivided into a planning phase, action phase, and maintenance phase. It is claimed that perceived self-efficacy plays a crucial role at all stages along with other cognitions (Bandura, 1995).

For example, risk perceptions serve predominantly to set the stage for a contemplation process early in the motivation phase but do not extend beyond. Similarly, outcome expectancies are chiefly important in the motivation phase when individuals balance the pros and cons of certain consequences for behaviours, but they lose their predictive power after a personal decision has been made. However, if one does not believe in one's capability to perform a desired action, one will fail to adopt, initiate and maintain it.

Fig 1 The Health Action Process Approach



The Motivation Phase

In the motivation phase, the individual forms an intention to either adopt a precaution measure or change risk behaviours in favour of other behaviours. Self-efficacy and outcome expectancies are seen as the major predictors of intentions. Most previous models treat these two as being unrelated predictors. However, there might be a temporal and causal order among them. Outcome expectancies can be seen as precursors of self-efficacy because people usually make assumptions about the possible consequences of behaviours before inquiring whether they can really take the action themselves. If self-efficacy is specified as a mediator between outcome expectancies and intention, the direct influence of outcome expectancy on intention may dissipate. But the research findings on this issue are very inconsistent, rendering both cognitions primary candidates for motivating change. Under conditions where individuals have no experience with the behaviour they are contemplating, we assume that outcome expectancies may have a stronger direct influence than self-efficacy. Only after a sufficient level of experience is attained does self-efficacy become more influential in forming an intention.

The influential role of risk perception (or threat) in the motivation and volition process may have been overestimated in past research and interventions. Fear appeals are of limited value; rather, the message has to be framed in a way that allows individuals to draw on their coping resources and to exercise skills in order to control health threats. In persuasive communications, a focus should be made on self-percepts of personal coping capabilities to manage effective precaution strategies. This suggests a causal order where threat is specified as a distal antecedent that helps to stimulate outcome expectancies which further stimulate self-efficacy. A minimum level of threat or concern must exist before people start contemplating the benefits of possible actions and ruminate their competence to actually perform them. The direct path from threat to intention may become negligible if expectancies are already well established.

In establishing a rank order among the three direct paths that lead to intention, it is assumed that self-efficacy and outcome expectancies dominate, whereas threat (or risk perceptions) may fail to contribute any additional direct influence. As indirect factors, however, threat may be of considerable significance within the motivation phase. The particular context and one's personal experience play a role and may change the

pattern of weights.

The Action Phase

It is common knowledge that good intentions do not necessarily guarantee corresponding actions. Correlations between intentions and behaviours vary tremendously. While in the motivation phase it is described what people choose to do, in the subsequent action or volition phase it is described how hard they try and how long they persist. The right-hand part of Figure 1 consists of three levels: cognitive, behavioral, and situational. The focus is on cognitions that instigate and control the action, i.e., a volitional or self-regulative process which is subdivided into action plans and action control.

When a preference for a particular health behaviour has been shaped, the intention has to be transformed into detailed instructions of how to perform the desired action. If, for example, someone intends to lose weight, it has to be planned how to do it, i.e., what foods to buy, when and how often to eat which amounts, when and where to exercise, and maybe even whether to give up smoking as well. Thus, a global intention can be specified by a set of subordinate of action sequences. The volition process is hardly influenced by outcome expectancies, but more strongly by self-efficacy, since the number and quality of action plans are dependent on one's perceived competence and experience. Self-efficacy beliefs influence the cognitive construction of specific action plans, for example by visualizing scenarios that may guide goal attainment. These postdecisional preactional cognitions are necessary because otherwise the person would act impulsively in a trial-and-error fashion and would not know where to allocate the available resources.

Once an action has been initiated, it has to be controlled by cognitions in order to be maintained. The action has to be protected from being interrupted and abandoned prematurely due to incompatible competing intentions which may become dominant while a behaviour is being performed. Meta-cognitive activity is needed to complete the primary action and to suppress distracting secondary action tendencies. Daily physical exercise, for example, requires self-regulatory processes in order to secure effort and persistence and to keep other motivational tendencies at a distance (such as the desire to eat, socialize, or sleep) until these tendencies can prevail for a limited time period.

When an action is being performed, self-efficacy determines the amount of effort invested and the perseverance. People with self-doubts are more inclined to anticipate failure scenarios, worry about possible performance deficiencies, and abort their attempts prematurely. People with an optimistic sense of self-efficacy, however, visualize success scenarios that guide the action and let them persevere in face of obstacles. When running into unforeseen difficulties they quickly recover.

Performing an intended health behaviour is an action, just as is refraining from a risk behaviour. The suppression of health-detrimental actions requires effort and persistence as well, and therefore is also guided by a volitional process that includes action plan and action control. If one intends to quit smoking or drinking, one has to plan how to do it. For example, it is important to avoid high-risk situations where the pressures to relapse are overwhelming. Attaining proximal subgoals helps increase the difficulty level of situations until one can resist under all possible circumstances. If someone is craving a cigarette or a drinking, action control helps him or her to survive the critical situation. For example, individuals can make favourable social comparisons, refer to their self-concept, or simply pull themselves together. The more these meta-cognitive skills and internal coping dialogues are developed and the better they are matched to specific risk situations, the easier the urges can be controlled. Self-efficacy helps to reestablish the perseverant efforts needed for the accomplishment of self-imposed goals.

Finally, situational barriers as well as opportunities have to be considered. If situational cues are overwhelming, meta-cognitive skills fail to protect the individual and the temptation cannot be resisted. Actions are not only a function of intentions and cognitive control, but are also influenced by the perceived and the actual environment. A social network, for example, that ignores the coping process of quitter by smoking in his presence, creates a difficult stress situation which taxes the quitter's volitional strength. If, on the other hand, a spouse decides to quit too, then a social support situation is created that enables the quitter to remain abstinent in spite of lower levels of volitional strength.

In sum, the action phase can be described along three levels: cognitive, behavioral, and situational. The cognitive level refers to self-regulatory processes that mediate between the intentions and the actions. this

volitional process contains action plans an action control and is strongly influenced by perceived self-efficacy, but also by perceived situational barriers and support.

This model is spelled out in more detail in other publications, along with some empirical data (Schwarzer, 1992, Schwarzer & Fuchs, 1995), although most of it is only available in German so far.

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Health psychology in Britain: recent trends and developments.

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As an academic discipline, health psychology has thrived in Britain. It is now taught on most undergraduate courses, and masters level courses are developing rapidly. However, many health psychologists have expressed higher ambitions than simply to be involved in teaching and research in the discipline of health psychology. There is now a strong move towards health psychology becoming a profession, with chartered health psychologists providing some form of professional service to health care providers and others. Some (e.g. Salmon, 1994) have argued that, by definition, health psychology cannot form a profession. Such commentators have argued, for example, that health psychologists do not have a unique skills-base that permits them to conduct tasks other groups are unable to do. However, this may be somewhat of a strawman: solicitors, for example, have unique knowledge, but not skills, through which they conduct much of their professional life but are still considered "professionals". Regardless of these esoteric arguments, there is a clear route through which health psychology can obtain "professional" independent status as recognised by the British Psychological Society (BPS), and hence acceptance at some level as an independent branch of psychology by potential employers. The impact of such developments, and possible future developments will be discussed here.

The story so far.....

Health psychology formally "began" in Britain at the 1986 annual London BPS Conference. At this meeting, a BPS Special Interest Group in Health Psychology was formally established and a committee, chaired by Marie Johnston, elected. By 1992, this grouping based on a shared academic interest, developed into a that of a Special Group, a change which acknowledged that health psychology draws upon a common and unique scientific literature. While such changes signified a growing interest in health psychology, they did not necessarily imply that British health psychology would develop

further than an academic discipline. More recent developments have begun to do just that. The committee of the Special Group in Health Psychology has now formally stated its decision, endorsed by the membership, to move towards becoming an independent profession.

Future progress?

To become an independent and recognised psychological profession, the status of health psychology within the BPS will have to change from that of Special Group to a Division. Divisional status acknowledges that its members not only share a common scientific interest but that they have received a validated education and training in skills common, and unique, to the discipline. If Divisional status is achieved, health psychologists will be able to act as independent practitioners within a variety of work settings with accreditation provided by the BPS. Divisional status confers the same level of professional independence as that now given to clinical, occupational and other recognised applied psychology professions.

The primary requirement of any professional psychology group (ie. Division) in Britain is that it has a training programme validated by the BPS which provides core skills necessary to practice the particular discipline. Accordingly, future practice of health psychology in Britain will be largely determined by the sort of training provided by such courses. A syllabus common to all training courses needs to be agreed by both the Membership and Qualifications Board (MQB) of the BPS and Council (its governing body). Acceptance of an agreed course of training which leads to a recognised professional qualification will change the status of the health psychology sub-system of the BPS from that of a Special Group to Division. This change requires the agreement of the membership of the BPS as a whole and is subject to a full vote of the membership. This democratic, if long-winded, process ensures that the development of any new professional training is beset by political as well as academic issues.

At present, a sub-committee of the Special Group is finalising the development of a common syllabus. This process has attempted to be as democratic as possible and has involved consultation of the membership at Annual General Meetings, larger conferences, and a day conference run specifically to identify and discuss members' views. What is agreed is that the training will be in the form of a post-graduate qualification (possibly at doctorate level following recent developments in clinical training) and will be available only to students who achieve the requirements for graduate basis of registration to the BPS: that is their initial degree be either in psychology or involve a substantial psychology component. This contrasts with the present situation, where some courses are run solely for psychology graduates, and some accept students from a variety of backgrounds (most notably from nursing) where the background knowledge in psychology may differ dramatically. Development of courses providing training in health psychology will not, of course, preclude the running of courses in health psychology which do not provide a validated training and which could be available for non-psychology graduates or those who do not wish to practice as chartered health psychologists.

More contentious has been the content of the training provided by such courses. Three models of training have been proposed (Rumsey et al., 1994), each lasting three years: the pure academic researcher, the health service researcher, and the practitioner model. The models differ in their complexity and the number of roles encompassed by "health psychologist". The first adopts the role of the academic working within the traditional boundaries of universities and research institutions. The second still identifies health psychologists primarily as researchers, although with a higher consultancy role, but proposes that health psychologists work in other research spheres and at differing research levels. "Pure" academic research maybe combined with audit and other more practical, problem - and service - oriented research. This model suggests a key employer of psychologists would be the public sector, particularly the health service.

The final model, the so - called practitioner model, suggest that health psychologists should have a diversity of roles. This model of working would encompass teaching, research and consultancy, as well as a clinical role, it is this latter aspect of this model which has proven the most controversial. In particular, the Division of Clinical Psychology has made its opposition to such a development clear. They have argued that clinical

psychologists have conducted clinical work with physically ill patients for many years, and that the necessary skill for working with this clinical group are best acquired through more prolonged clinical training than would be received by students on health psychology courses.

Clinical psychology has fought with psychiatrists and other professional groups to achieve a high professional prestige and relatively favourable employment conditions in the NHS. Now the potential "enemy" in seen, by some at least, as coming from within. The clinicians argument has some strength, and there is sufficient areas of work within and beyond the NHS for both clinicians and health psychologists (see Bennett & Wright, 1993). Moreover, as clinical psychologists form a powerful lobby both within the BPS and NHS, this case is likely to be conceded. This, in turn, may lead to concern amongst the present membership of the Special Group. Approximately half the membership (totalling approximately 774 members) are clinical psychologists who work with physically ill patients. Criteria for full membership of the Division of Health Psychology which do not acknowledge such skills, and therefore will not permit them full divisional membership is likely to disenfranchise an important, and large section of the Special Group.

Nevertheless, the model of training being adopted is that of the health service practitioner. This is, in essence, a hybrid of models two and three: it will incorporate a primary research and consultancy role with additional roles involving teaching and management. The exact role of health psychologists will probably be determined by what health care providers and others are prepared to pay for. Three areas in which health psychologists are likely to be involved are Public Health, Health Promotion and Audit Departments within the medical sector. In addition, there is an increasing move towards generic "Departments of Psychology" within the NHS, which will employ psychologists with a variety of skills and backgrounds, as this is likely to make them more powerful in attracting contracts and money from a variety of sources, not simply the clinical areas which now form the basis of most departments.

Developments in health psychology should not be taken in isolation from other developments in post-graduate training in Britain. At the same time as the developments outlined above have been discussed, more wide ranging developments have been discussed within

the BPS, focusing on a more fundamental change to training. Presently being debated within the BPS is the notion that all applied psychologists engage in a two or three year training, the first year of which is generic and focuses on general issues of value to all applied psychologists (research methods, general models of human behaviour etc.), with the second (and perhaps third year) devoted to aspects more specific to each branch of psychology. While still a possibility, this strategy appears to have a major stumbling block: namely, a lack of potential funders. Health Commissioners in the NHS, for example, who are one of the major sponsors of post-graduate training in clinical are reluctant to pay for non-specific training. Which brings the debate to an important and, as yet, barely addressed issue in health psychology training. Who is going to pay for it?

Presently, most post-graduate health psychology courses run both full - and - part time courses. Most students are part-time, sponsored frequently by their employer. Those who most easily obtain such sponsorship are, perhaps ironically, those who have no background in psychology (in particular nurses) and who would not be eligible for training in courses validated in the present developments. Convincing sponsors, in particular health service commissioners, to sponsor full-time training towards a profession with, as yet, an unproven record, may yet prove the biggest stumbling block to the development of British health psychology practice.

References

Bennett P. & Wright S. (1993) Health and clinical psychology: competing factions or synergistic collaborators? *Clinical Psychology Forum*, 58, 2-5.

Rumsey N., Maguire B., Marks D.F., Watts M., Weinman J. & Wright S. (1994) Towards a core curriculum. *The Psychologist: The Bulletin of the British Psychological Society*, 7, 129-131.

Salmon P. (1994) Is health psychology a profession or can it become one? First ask the right questions. *The Psychologist: The Bulletin of the British Psychological Society*, 7, 542-544.

Dr. Bennett was until recently the Honorary Secretary/Treasurer of the Special Group in Health Psychology of the British Psychological Society. He can be contacted at the Community Mental Health Unit, 12 Park Square, Newport, Gwent, NP9 4EL, Wales, UK.

Knowledge base of Health Psychology

(This listing originally appeared in Rumsey N, Maguire B, Marks DF, Watts M, Weinman J, and Wright S (1994) Towards a core curriculum, *The Psychologist*, 7, 129-131))

1. Context and perspective in health psychology:

- * historical overview and current theories and approaches in health psychology;
- * awareness of related disciplines (medical sociology; medical ethics; medicine; behavioural medicine; health policy; health economics; medical anthropology);
- * the impact of social and cultural factors.

2. Epidemiology of health and illness:

- * causes of mortality/morbidity;
- * behavioural epidemiology;
- * biostatistics;
- * inequalities in health.

3. Mechanisms of health and disease:

- * nervous system;
- * endocrine system;
- * digestive system;
- * respiratory system;
- * cardiovascular system;
- * immunological system;
- * genetic mechanisms.

4. Health-related behaviour:

- * theoretical models;
- * protective/promotional behaviour;
- * behavioural risk factors;
- * sociocultural factors;
- * behavioural factors in CHD, HIV, cancer.

5. Health-related cognitions:

- * efficacy and control beliefs;
- * attributions;
- * social and individual representations
- * health beliefs;
- * symptom perception; the perception of pain;

perceptions of risk;

- * decision making by health care psychologists; by patients/clients etc.

6. Individual differences, health and illness:

- * the disease-prone personality;
- * dispositional optimism/pessimism;
- * personality factors in CHD, cancer, etc.;
- * locus of control;
- * self-efficacy;
- * negative affectivity.

7. Stress, health and illness:

- * models of stress;
- * causes /consequences of stress;
- * stress management;
- * stress moderators: i) social support; ii) hardiness;
- * models of coping;
- * coping styles, coping strategies.

8. Chronic illness:

- * coping with chronic illness/disability;
- * pain; theories of pain; management of pain;
- * interventions in chronic illness/disability;
- * issues in caring for the chronically ill.

9. Lifespan, gender and cultural issues

- * gender and health;
- * children's perceptions of illness;
- * the role of the family in health and illness;
- * lifespan changes in health and illness;
- * death and dying.

10. The treatment context:

- * communication in health care settings;

the impact of screening;

- * the impact of hospitalization on adults and children;
- * preparation for stressful medical procedures;
- * giving bad news;
- * adherence;
- * communication /patient satisfaction;
- * placebos.

11. Applications

- * designing health interventions and designing outcomes;
- * health education/promotion: i) worksite interventions; ii) community based interventions; iii) public health/media campaigns;
- * specific applications/ interventions, e.g. in the management of cardiovascular disease, cancer, HIV, etc.

12. Research methods:

- * experimental design - cross-sectional and longitudinal designs, single case study designs;
- * advanced qualitative and quantitative data analysis;
- * health services research;
- * common pitfalls in research.

13. Measurement issues:

- * measurement of process;
- * measurement of outcome;
- * individual differences;
- * health-related quality of life.

14. Professional issues:

- * ethical codes of conduct;
- * legal and statutory obligations and restrictions;
- * interprofessional relations;
- * European and international perspectives.

Preliminary Results of Review of Health Psychology Training Opportunities in Canada

Gordon S. Butler

*Secretary/Treasurer
CPA Health Psychology Section*

During the 1995 Annual General Meeting of the Health Psychology Section it was proposed that the section undertake a survey of health psychology training opportunities in Canada. The intention of the survey was to gather information to assist students seeking training in health psychology.

In early August, 1995, a brief questionnaire was mailed to 45 Clinical Internship Settings and 25 Universities with Clinical Psychology Programs. At the time this article was written, 25 (55%) of the Internship Settings and 16 (64%) of the Clinical Programs had responded.

Of the Internship Programs which responded, 22 (88%) offered some training in health psychology. Eighteen (72%) of the programs offered one-year internships in which a mean of 60% (range 20% - 100%) of the intern's caseload was devoted to health psychology related cases.

Nine (36%) also offered practicum training. In almost all cases, practicums were the equivalent of three months in duration and had a 100% concentration in health psychology cases. Six Internship Programs indicated that they offered post doctoral training, but this offer was usually dependant upon the student providing their own funding. The programs had a mean number of 7.4 (range 0 - 20) supervisors interested in health psychology issues.

Of the university based Clinical Psychology Programs, 12 (75%) of the 16 which responded indicated they offered some training in health psychology. Eleven (69%) offered at least one undergraduate course in some area of health psychology, and 9 (56%) offered at least one graduate course. It was possible to complete an honours, masters, or doctoral thesis in a health psychology area at each of the universities. Eleven (78%) reported that opportunities existed for research assistantships in an area of health psychology and half (8) of the universities had comprehensive exams in health psychology. The university programs had a mean number of 3.7 (range 1 - 8) faculty interested in health psychology areas.

The Internship Programs and the University Clinical Programs were also asked to indicate the areas of health psychology in which supervisors or faculty had clinical or research interests. Table 1 provides a breakdown of the areas of interest.

The information collected in the survey will be made available to students and others, upon request.

Table 1. Percentage of Internship (I) and University (U) programs in which at least one supervisor or faculty member has an interest in the health psychology area listed.

<u>I</u>	<u>U</u>		<u>I</u>	<u>U</u>	
40	25	01-Adherence	36	25	23-Hypertension
20	38	02-Aging	8	0	24-Minority Health
24	31	03-AIDS/HIV	52	31	25-Neurological Disorders
20	50	04-Alcohol/Drug Abuse	40	50	26-Obesity/Eating Disorders
24	19	05-Arthritis	76	50	27-Pain
4	19	06-Behavioral Genetics	12	31	28-Prevention
20	25	07-Behavioral Pediatrics	16	25	29-Psychoneuroimmunology
48	31	08-Cancer	44	44	30-Psychosomatic disorders
36	13	09-Cardiac Rehab	4	6	31-Public Health
28	19	10-Chronic Fatigue	28	0	32-Pulmonary Disorders
54	44	11-Chronic Illness	48	31	33-Rehabilitation
48	19	12-Compliance	16	13	34-Reproductive Disorders
44	46	13-Coronary Heart Disease	24	13	35-Sleep Disorders
4	6	14-Dental Disorders	28	19	36-Smoking Cessation
36	0	15-Diabetes Mellitus	4	25	37-Sports Medicine
4	6	16-Epidemiology	80	81	38-Stress Management
24	19	17-Exercise/Fitness	20	0	39-Transplantation
48	13	18-Gastrointestinal	28	19	40-Type A Behavior
60	38	19-Headaches	0	0	41-Urological Disorders
8	6	20-Health Care Policy	24	38	42-Women's Health Issues
0	0	21-Health Economics	8	6	43-Worksite Health
20	28	22-Health Promotion			

SECTION NEWS

1. Officers

At the Section Business Meeting which was held at the CPA Convention in Charlottetown, PEI the following were elected as section officers for the next two years:

Chair: Dr. Michael Murray
Division of Community Medicine
Memorial University of Newfoundland,
St. John's, NF, A1B 3V6.

Secretary/Treasurer: Dr Gordon Butler
Department of Psychology
Victoria General Hospital
Halifax, NS, B3H 2Y9.

Chair-elect: Dr. Patricia Dobkin
Department of Medicine
Division of Clinical Epidemiology
Montreal General Hospital
1650 av. Cedar, suite L10417
Montreal, PQ, H3G 1A4.

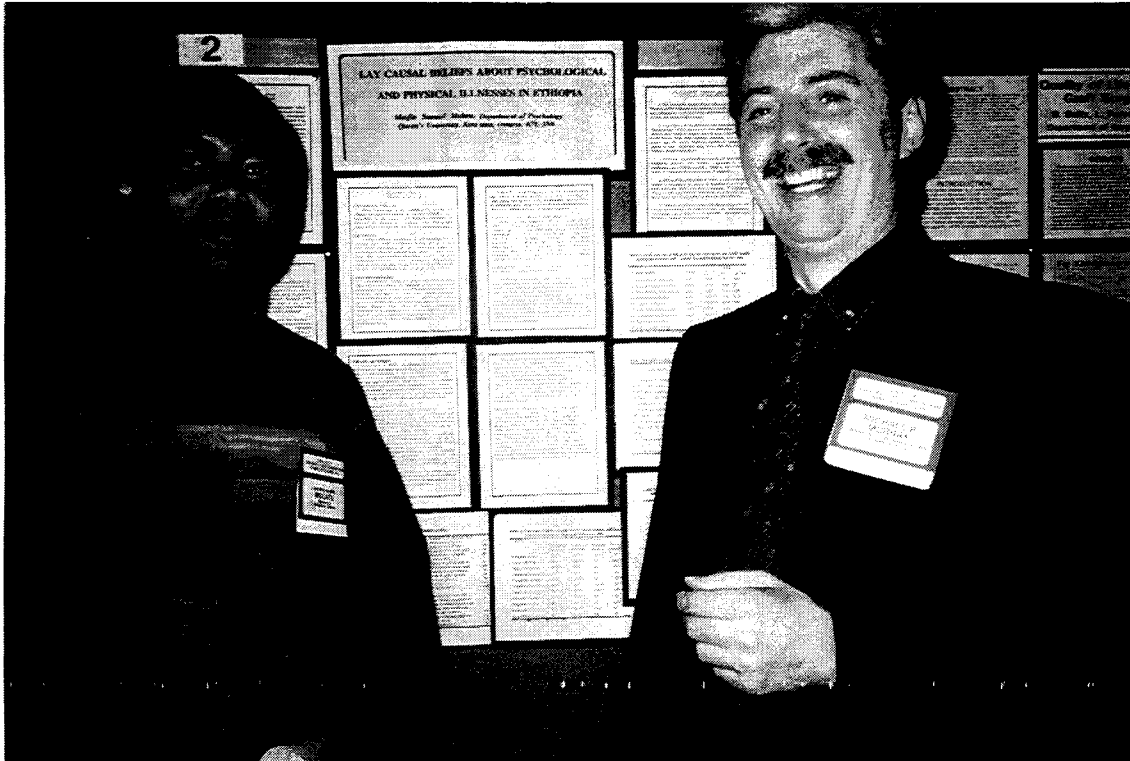
2. Membership

It was agreed at the Business Meeting to compile a membership directory which will include details of members' interests. Currently membership is over 200 but is increasing and further details will be given after the CPA releases membership totals for 1996.

3. Award

The award for the best student paper presented at the CPA Annual Convention was awarded to Mesfin Mulatu, a graduate student at Queen's University. It was agreed that an award would be given in 1996 to the best student paper presented at the I.U.P.S. meeting in Montreal.

Below: The Section Chair, Dr. Michael Murray, presents the prize for the best student paper in health psychology to Mesfin Mulatu at the CPA convention in Charlottetown.



4. I.U.P.S. Meeting

There will not be a CPA convention in 1996. Instead, all section members are encouraged to participate fully in the I.U.P.S. meeting. In addition, at this meeting the section will organise a business meeting and also host a reception to which overseas health psychologists attending the conference will be invited. We would also like to organise a display of "health Psychology in Canada" at this reception. All members are encouraged to submit materials, e.g. papers, reports, etc, which could be used in this display.

5. Training opportunities

Due to the number of requests about training opportunities, it was decided to conduct a survey of intern and university programs. Initial details are provided elsewhere.

6. HIV/AIDS

It was agreed to establish a Special Interest Group on HIV/AIDS within the Section. The co-ordinator of this Special Group is:

Dr. Bill Coleman
Sexually Transmitted Disease Clinic
828 West 10th Avenue
Vancouver, BC
V5Z 1L8

It was also agreed that the authors of the papers presented in the Special Symposium on HIV/AIDS be invited to submit their papers for publication in The Canadian Health Psychologist. It is hoped that they will be included in a special section of a future issue.

Psychologists in Medical Schools

In November, the Association of Medical School Professors of Psychology (AMSP) convened a special meeting in Washington DC entitled "HealthCare Reform and Psychologists in Medical Schools: Stress, Challenge, and Change". Over 60 psychologists from all over North America attended this invitation-only meeting which was designed to develop a framework for psychologists working in medical schools and academic health centres.

Overall, this was a very successful meeting. In discussing with the prospects with Canadian delegates it was felt that a similar type of meeting for health psychologists in Canada would be a very worthwhile initiative. The section will be exploring this option in the coming year.

A full report on this meeting will be made available at a later date to delegates and other interested parties.

Dr. Robert Martin, a section member, is the outgoing President of AMSP. He can be contacted at PZ 202, PsychHealth Centre, 771 Bannatyne Avenue, Winnipeg, Manitoba, R3E 3N4.

Psychosocial Processes and Health: A Reader

A Steptoe & J Wardle (Eds)
Cambridge University Press, New York
1995
Softcover, US\$39.95
ISBN 0-521-42618-9

Making Sense of Illness: The Social Psychology of Health and Disease

A Radley
Sage, Thousand Oaks, CA
1994 (Softcover)
ISBN 0-8039-8909-1

The recent publication of these two volumes provides an opportunity for reviewing the diversity, or even dichotomy, of opinion within health psychology.

The former is an edited collection of "important papers that have been published over the past 30 years in the area of psychosocial processes and health". According to the editors "some of these papers are classics in the field, in that they were instrumental in bringing particular theoretical orientations into a wider scientific consciousness, or in establishing important empirical findings with significant clinical implications".

The book is divided into six sections, namely: Life stress, Social support and health; Psychophysiological processes in disease; Personality, behaviour patterns, and health; Health practices and the modification of health and behaviour; Coping with illness and disability; and Behavioural interventions in medicine. Each section, which contain 4-6 articles which have been published over the past 30 years, is preceded by a short

introduction placing the articles within a more contemporary context.

Although the editors are both health psychologists it is obvious that despite the title of the volume they would define the discipline with reference to the dominant medical model. For example, of the 31 articles included, 8 were originally published in *The Lancet*, 3 in the *New England Journal of Medicine*, and 4 in the *American Journal of Epidemiology*. Indeed, only 3 articles are taken from mainstream psychology journals (*Journal of Personality and Social Psychology*; and the *Journal of Consulting and Clinical Psychology*).

This collection is well organized and provides a coherent and comprehensive summary of the major contributions of the natural scientific approach which has been the dominant perspective within health psychology. Unfortunately, the editors seem unaware of alternative perspectives particularly those from the social sciences which are stated eloquently in the second volume by Alan Radley.

He begins by distinguishing between three broad perspectives, other than biomedicine, which have been used to study health and illness. These are the behavioural perspective within which he includes behavioural medicine and health psychology (and which is epitomised in the previous volume), the societal perspective, which is largely medical sociology, and the cultural perspective being largely medical anthropology.

Radley prefers to adopt an integrated perspective. He considers the ignorance of experiential and social issues as being the major gap in the dominant behavioural approach. At the same time his primary aim is not with questions of health outside human experience.

He defines his approach as being "to examine health and illness with an eye to seeing how these matters 'make sense' to people. This means how people collectively make sense of disease; how individuals make sense of their own experience; and how being sick can make someone's world 'make sense' in new and different ways."

The book is organized in a series of chapters which consider such issues as public perceptions/beliefs, falling sick, relationships with professionals, gender issues, chronic illness, stress and health promotion. Each chapter is not simply a summary of the literature but rather a coherent integration of social and psychological studies of health and illness. It is interesting to compare what Radley considers to be the key references. Of over 400 articles listed only two are included in Steptoe and Wardle's book. The most frequently cited journals are *Social Science and Medicine*, *Sociology of Health and Illness* and the *Journal of Health and Social Behaviour*. Although the literature may be unfamiliar to many health psychologists the book is to be strongly recommended as an alternative to the dominant natural scientific perspective detailed in the reader by Steptoe and Wardle.

Michael Murray, Ph.D.

Conference Dates

4th International Congress of Behavioral Medicine 13-16 March, 1996, Washington, DC.

Details: Society of Behavioral Medicine, 103 South Adams Street, Rockville, Maryland, 20850, USA.

14th World Congress on Occupational Safety and Health 22-26 April, 1996 Madrid, Spain.

Details: Secretaria de Congreso, Instituto Nacional de Seguridad e Higiene en el Trabajo, Calle de Torrelaguna 73, E-28027 Madrid, Spain.

Canadian Public Health Association 87th Annual Conference 2-5 July Vancouver, BC

Details: Dr J Altman, Scientific Program Committee, CPHA, 400-1565 Carling Avenue, Ottawa, ON, K1Z 8R1.

11th International Conference on AIDS 7-12 July 1996 Vancouver, BC

Details: PO Box 48740, 895 Burrard Street, Vancouver, BC, V7X 1T8.

Teaching about Communication in Medicine 24-26 July, 1996 Oxford, England.

Details: Dr. G. Makoul, Program in Communication and Medicine, Northwestern University Medical

School, 303 East Chicago Avenue (W117), Chicago, Illinois, 60011.

8th World Congress on Pain 16-21 August 1996 Vancouver, BC

Details: International Association for the Study of Pain Secretariat, 909 NE 43rd Street, Suite 306, Seattle, WA 98105.

10th Conference of the European Health Psychology Society 4-6 September 1996 Dublin, Ireland.

Details: Dr H McGee, EHPS '96, Department of Psychology, Royal College of Surgeons in Ireland, Mercer Building, Mercer Street Lower, Dublin 2, Ireland.

3rd World Conference of Psycho-Oncology 4-6 October, 1996 New York City.

Details: Indexa USA Inc., 1060 Cambridge Square, Suite D, Alpharetta, Georgia 30301.

PSICOSALUD '96: 2nd International Conference on Health Psychology 14-18 October 1996 Havana, Cuba

Details: Dra. Noemi Perez Valdes Sociedad Cubana de Psicologia de la Salud, Consejo Nacional de Sociedades Cientificas, Ministerio de salud Publica, Calle L No. 406 e/23 y 25, Vedado, La Habana 4, CUBA, CP 10400.

Periodicals

Sage Publications have recently launched the **Journal of Health Psychology**. This journal is designed to be international in its orientation and its Editorial Board includes three members of the CPA Health Psychology Section besides members from the US, South America, Europe, Asia, and Australasia.

The editor is Dr. David Marks, Health Research Centre, Middlesex University, Queensway, Enfield, Middlesex EN3 4SF, England, UK. He is particularly keen to receive submissions from Canadian health psychologists.

Sage Publications have agreed to offer a 20% discount to any members of the section who decide to take out an individual subscription to the Journal. This section subscription rate will apply after the initial charter subscription rate of US\$37.5 per annum expires.

For further details contact Sage Publications, PO Box 5096, Thousand Oaks, CA 911359.

The journal is also available 'on line' on the world wide web. Look at page <http://www.mdx.ac.uk/www/jhp/welcome.htm>.

The first issue will be available in January 1996.

MEMBERSHIP APPLICATION

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Area of interest:

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Mail your completed application form to the Canadian Psychological Association, 151 Slater Street, Suite 205, Ottawa, ON, K1P 5H3. Send a copy to Dr. Gordon Butler, Department of Psychology, Victoria General Hospital, Halifax, Nova Scotia, B3H 2Y9.

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Souscriptions annuelles sont 10.00\$ (+0.70 TPS) par membres, 5.00\$ (+0.35 TPS) par étudiants, et 15.00\$ (+1.05\$ TPS) par associés (non-membres du SCP).

Envoyer votre application à la Société canadienne de psychologie, rue Slater, Suite 205, Ottawa, ON, K1P 5H3. Envoyez une copie à Dr. Gordon Butler, Department of Psychology, Victoria General Hospital, Halifax, Nova Scotia, B3H 2Y9.
