(Konradsen and Munk-Jorgensen, 2007) and an entire recent issue of IP (volume 19, issue 4) was dedicated to research papers from LMI countries.

What can be done to promote geriatric psychiatry research in LMI countries and subsequent submission and acceptance for publication in geriatric psychiatry journals? Leading international organizations like the WHO, the International Psychogeriatric Association (IPA) and Alzheimer's Disease International (ADI) play an important role in raising awareness among national policy makers in LMI countries about the rapidly increasing elderly population size in these countries and the importance of high quality, locally acquired research data in planning geriatric psychiatry services. For example, the IPA (Abelskov and Shah, 2001) and ADI (10/66 Dementia Research Group, 2000a; 2000b) have several ongoing initiatives to facilitate this ambition. Patel (2007) described a number of strategies and initiatives to increase research capacity at individual and institutional level in LMI countries, including dedicated funding for building research capacity, creating partnerships between institutions with good research capacity and institutions in LMI countries without good research capacity, and commitment of governments and academic institutions to build research capacity. Specialist geriatric psychiatry journals can also facilitate high quality submissions by increasing the number of reviewers from LMI countries and by offering an advisory service on improving the quality of submissions. IP has an initiative to help researchers improve the quality of their submissions, but the uptake rate for this service is unclear.

Caution should be exercised in interpreting the current findings because only two geriatric psychiatry journals were examined and therefore the findings cannot be extrapolated to other geriatric psychiatry journals; and only one researcher examined the two journals.

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Should research focus specifically on elderly suicide rates in cross-national ecological studies designed to identify distil risk factors?

Suicide rates increase with aging in many countries. In a recent study of 62 developed and developing countries, suicide rates increased with age for males and females in 25 and 27 countries respectively, and in both sexes in 17 countries (Shah, 2007). Suicide rates increased with age in 47 of the 49 medium- and high-income countries (Keimo, 2004). Comprehensive understanding of the substantial worldwide variation in population patterns of suicide may be critical for developing

prevention programs (Knox *et al.*, 2004). Much is known about individual level proximal risk factors and preventative strategies can be targeted at identified high risk groups (Shah and De, 1998). Also, proximal risk factors for elderly suicide victims are generally different from those for younger suicide victims (Shah and De, 1998). However, distil risk factors may be similar for elderly and younger suicide victims. Such distil risk factors include societal socioeconomic status (Kennedy *et al.*, 1999; Shah *et al.*, 2008), societal income inequality (Kowalski *et al.*, 1987; Shah *et al.*, 2008), education (Kowalski *et al.*, 1987; Agbayewa *et al.*, 1998), degree of urbanization (Stack, 1993), degree of social integration (Durkheim, 1992) and provision of health and mental health service provision (Shah and Bhat, 2008). In general, preventative measures targeting distil risk factors require development of public health strategies at a societal level. Should research focus specifically on elderly suicide rates in cross-national ecological studies designed to identify distil risk factors?

Data on general population suicide rates for males and females and elderly suicide rates for males and females in the age-bands 65–74 years and 75+ years was ascertained from the World Health Organization (WHO) website (www.who.int/whois/database/mort/table1.cfm). Data on the elderly (65+ years) population size and the total population size were ascertained from the same website. This allowed calculation of the proportion of elderly in the total population. Full data sets were available for 67 countries. Partial correlation coefficients were calculated for the relationship between general population suicide rates and elderly suicide rates by controlling for the proportion of elderly in the general population. Male general population suicide rates were correlated with elderly suicide rates in males aged 65–74 years ($r = +0.86$, $p < 0.00001$) and males aged 75+ years ($r = +0.61$, $p < 0.00001$). Female general population suicide rates were correlated with elderly suicide rates in females aged 65–74 years ($r = +0.78$, $p < 0.00001$) and females aged 75+ years ($r = +0.79$, $p < 0.00001$).

The highly significant and strong correlation between general population suicide rates and elderly suicide rates may support an argument in favor of focusing efforts for identifying distil risk factors on general population suicide rates. There are several reasons for this. First, the distil risk factors listed above are similar for general population suicide rates and elderly suicide rates. Second, preventative measures targeting distil risk factors require development of public health strategies at a societal level and should be similar for both groups. Third,

if there is a differential focus on the development of different public health preventative strategies for elderly and general population suicides then there is a real risk that the elderly will be marginalized and not be able to compete for scarce funding. This is supported by evidence that special mental health programs for the elderly generally occur in countries that have well developed mental health services for the general population (Shah, 2008). Thus, focusing on general population suicide rates and public health preventative strategies for the entire population may be more likely to be beneficial to the elderly. We would like to challenge an alternative view.

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The relationship between elderly suicide rates and the affordability of psychotropic drugs

A recent cross-national study of 62 developing and developed countries reported an increase in suicide rates with aging in males and females in 25 and 27 countries respectively (Shah, 2007). Longitudinal studies over time have reported a decline in elderly suicide rates in England and Wales (Gunnell *et al.*, 2003; Lodhi and Shah, 2004), Sweden (Carlsten *et al.*, 1999) and Australia (Hall *et al.*, 2003) with an increase in prescription rates of antidepressants, particularly selective serotonin reuptake inhibitors. The vast majority of elderly suicide victims have depressive illness (Shah and De, 1998). The pathway to elderly depressed individuals acquiring a prescription of antidepressants includes the following sequential steps: recognition by individuals or their carers that there is problem and consulting a healthcare professional; recognition of depression by the healthcare professional; prescription of antidepressants by the healthcare professional; and, purchasing of the antidepressants by the patient. Different methods of acquiring the prescribed antidepressants exist in different countries including: healthcare professionals dispensing the antidepressant free or at a cost; and obtaining the prescribed antidepressant from a pharmacist free (either through state welfare system or insurance schemes) or at a cost. We have examined the relationship between elderly suicide rates and the affordability of psychotropic medication in a cross-national study.

Two unidirectional hypotheses were tested: (1) there would be a negative correlation between elderly suicide rates and affordability of antidepressants given a strong relationship between depression and elderly suicide; and (2) there would be no association between elderly suicide rates and affordability of anti-dementia drugs given the unequivocal relationship between dementia and elderly suicides. One null hypothesis was tested: there would be no relationship between elderly suicide rates and affordability of antipsychotic drugs given a weak association between schizophrenia and elderly suicides.

The International Psychogeriatric Association's Mental Health Economic Task Force, led by Professor G. K. Suh, has recently produced data on the affordability of psychotropic drugs in 20 countries as measured by the affordability index (AI). The AI is a measure of the number of tablets of a particular psychotropic medication at a particular dose that can be purchased with one day's income. Data on the AI were available for the following drugs for different preparations and doses: anti-dementia drugs (donepezil, galanthamine, rivastigmin and memantine); antidepressants (moclobemide, citalopam, sertraline, paroxetine, mirtazepine, venlofaxine and bupropion); and antipsychotics (amisulpiride, aripiprazole, clozapine, olanzapine, risperidone, quetiapine and zis).

Data on suicide rates for males and females for the general population and specifically in the age-bands 65–74 years and 75+ years were ascertained from the WHO website (www.who.int/whosis/database/mort/table1.cfm) for the latest available year. Spearman's rank correlation test (ρ) was used to examine the relationship between suicide rates for males and females in the general population and specifically in the age-bands 65–74 years and 75+ years and the AI index for all the different doses and preparations of all the psychotropic drugs listed above.

Data on both the AI and suicide rates were available for a median (range) of 9 (2–15) countries depending on the precise psychotropic drug, dose and preparation (not all doses and all drugs were available in all the countries). There was no significant correlation between AI and suicide rates in any group with three exceptions. There was a positive correlation between the male general population suicide rate and the AI of clozapine 25 mg ($\rho = 0.76$, p $= 0.006$) and clozapine 100 mg ($\rho = 0.71$, p $= 0.022$); in females this relationship was only seen with clozapine 100 mgs ($\rho = 0.63$, p $= 0.039$). The significance of these correlations disappeared when corrections for multiple comparisons were applied.

The absence of correlation between AI and elderly suicide rates is not consistent with earlier reports of a decline in elderly suicide rates with an increase in prescription rates of antidepressants