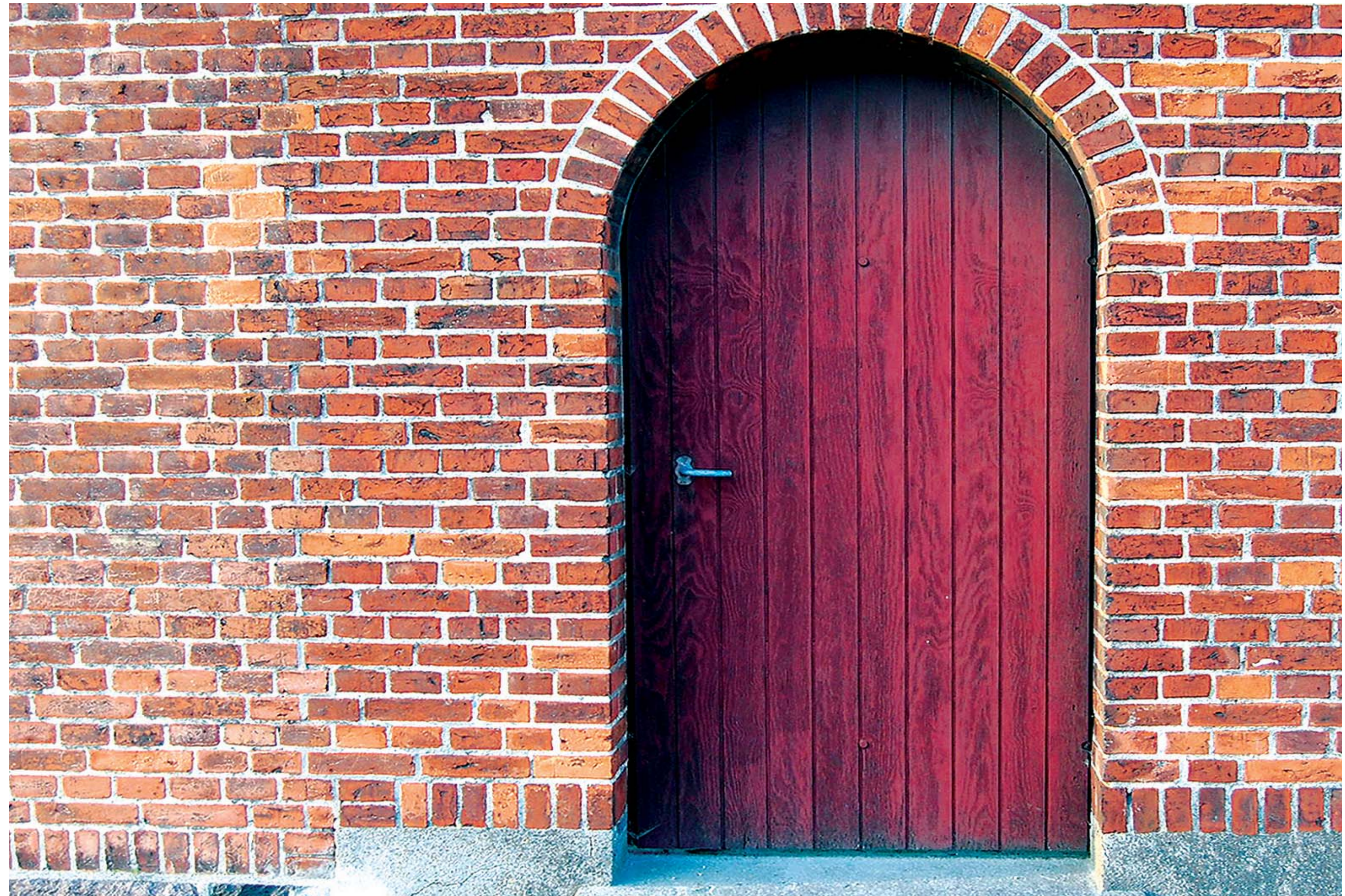
Forskningscentrets rapportserie
2008

Rapport 1, del 2



Selvmordsadfærd og selvskade blandt etniske minoriteter

Iben Stephensen og Lilian Zøllner

Udgivet af Center for Selvmordsforskning 2008

Suicide Risk and Deliberate Self-harm among Persons With Foreign Background in Denmark

Forskningscentrets rapportserie
2008

Rapport 1, del 2

Selvmordsadfærd og selvskade blandt etniske minoriteter

Iben Stephensen og Lilian Zøllner

Udgivet af
Center for Selvmordsforskning, Odense
Januar 2008

Selvmordsadfærd og selvskade blandt etniske minoriteter.

© Forfatterne og Center for Selvmordsforskning, 2008

Iben Stephensen er akademisk medarbejder ved **Center for Selvmordsforskning** i Odense.

Uddannet cand.mag. i samtidshistorie og samfundsfag i 2002 fra SDU og Århus Universitet

Lilian Zøllner er center leder, Ph.D. ved **Center for Selvmordsforskning** i Odense. Har igennem en lang årrække forsket i sårbarhed, selvskade og selvmordsadfærd blandt såvel vestlige som ikke-vestlige unge

Gengivelse af uddrag, herunder billeder, figurer, tabeller og citater er tilladt med tydelig kildeangivelse.
Foto / Lay Out: Vibeke B. Lassen

Skrifter, der omtaler, anmelder, citerer eller henviser til nærværende publikation, bedes sendt til Center for Selvmordsforskning.

Udgivet af og kan købes hos:
Center for Selvmordsforskning
Søndergade 17
5000 Odense C
Tel: (+45)66138811
Fax: (+45)65908174
E-mail: info@cfsmail.dk
Hjemmeside: www.selvmordsforskning.dk
Pris: kr. 75,00

1. udgave, 1. oplag, januar 2008
ISBN-nr. 978-87-90291-56-3

INDHOLD

Forord	6
Indledning	8
Study I	10
Study II	18

FORORD

Da Referencegruppen til forebyggelse af selvmordsforsøg og selvmord blev nedsat i 1999 blev der efterspurgt forskningsstudier vedrørende etnicitet og selvmordsadfærd, idet den eksisterende viden var begrænset. Bl.a. på baggrund af Referencegruppens efterspørgsel blev de to nedenstående studier gennemført.

Det første studie:
Suicide Risk Among Persons with Foreign Background in Denmark.
Vanita Sundaram, MA, Ping Qin, MD, Ph.D. and Lilian Zøllner, Ph.D
Udgivet i Suicide & Life-threatening Behaviour 36(4) august 2006, s. 481-489.

er et kvantitativ studie, der har undersøgt sammenhængen mellem etnicitet, defineret ud fra fødeland, og selvmord i perioden 1981-1997. Studiet er baseret på danske registerdata (data om selvmord i Dødsårsagsregisteret sammenkørt med data om etnicitet i Danmarks Statistiks IDA-database). Undersøgelsen viser, at selvmordsrisikoen er højere blandt personer født i de andre nordiske lande end personer født i Danmark af danske forældre. Derudover viser undersøgelsen, at personer, som er født i Asien, har en lavere risiko for at begå selvmord end personer født i Danmark af danske forældre. Blandt unge som er født i Asien, har mænd en lavere risiko for at begå selvmord end kvinder. Men tallene viste også, at der ikke var store forskelle i selvmordsrisikoen mellem kvinder, som er født i Asien og etnisk danske kvinder.

Projektet indgår i ”Selvmord, selvmordsforsøg og selvmordstanker i Danmark. Et tværinstitutionelt og tværfagligt forskningsarbejde.” Projektet er støttet af Socialministeriet efter indstilling fra Referencegruppen til forebyggelse af selvmordsforsøg og selvmord.

Det andet studie:
Deliberate selfharm in immigrant Pakistani and ethnic Danish adolescent: A cross-cultural comparison of ethnic differences in coping strategies.
Cand. psyk. Søren Møller, cand. mag. Iben K. Stephensen, cand. scient. oecon Erik Christiansen and Lilian Zøllner, Ph.D.

er en kvantitativ artikel, der belyser etniske og kulturelle forskelle i copingstrategier og forekomst af selvskade og selvmordstanker mellem etniske danske og pakistanske unge med bopæl i Danmark.

Projektet, der indgår som en del af CASE-undersøgelsen, er en spørgeskemaundersøgelse. Spørgeskemaet er besvaret af elever i 8. og 9. klasse på folkeskoler i København, Århus og Odense, hvor andelen af elever med anden etnisk baggrund udgør mere end 20%. Resultaterne viser en højere forekomst af selvmordstanker og selvskade blandt danske unge end pakistanere. De pakistanske unge anvender i

højere grad end etnisk danske social støtte og religion som copingstrategier, når de skal håndtere personlige problemer.

Projektet indgår desuden i "Selvmord, selvmordsforsøg og selvmordstanker i Danmark. Et tværinstitutionelt og tværfagligt forskningsarbejde". Projektet er støttet af Socialministeriet efter indstilling fra Referencegruppen til forebyggelse af selvmordsforsøg og selvmord.

Den foreliggende rapport har samlet de to artikler med det formål at formidle viden som grundlag for forebyggelse af selvmordsadfærd og selvskade blandt etniske minoriteter i Danmark, og målgruppen er derfor alle, der enten i deres uddannelsesforløb eller i forbindelse med deres arbejde kommer i kontakt med selvmordstruede mennesker.

Nærværende rapport skal ses i sammenhæng med rapporten" Etniske minoriteter og selvskadende adfærd" rapport nr. 1 – udgivet af Center for Selvmordsforskning - der består af fire studier af ikke-vestlige unges selvskade og selvmordsadfærd.

Indledningsvis bliver andre danske studier vedrørende emnet beskrevet, og derefter følger de to nævnte studier.

Center for Selvmordsforskning vil gerne rette en tak til forfatterne af artiklerne, Vanita Sundarem, Ph.D., cand. med. Ping Qin, Ph.D., cand. psych. Søren Møller og cand. scient. oceon. Erik Christiansen.

Ydermere rettes en tak til Referencegruppen til forebyggelse af selvmordsforsøg og selvmord for økonomisk støtte til dataindsamling vedrørende selvmordsadfærd og selvskade blandt etniske minoriteter. Til Vibeke B. Lassen rettes en tak for lay-out og opsætning og Trine Banke Kristensen for oversættelse.

Iben Stephensen   Lilian Zøllner

Januar 2008

INDLEDNING

I takt med den øgede migration landene imellem er der kommet øget fokus på selvmordsadfærd og selvskade blandt etniske minoriteter, der findes dog stadig kun få danske forskningsstudier om emnet. Der er i de forskellige undersøgelser ofte fremsat hypoteser om, at selvskade og selvmordsadfærd er mere fremherskende blandt etniske minoriteter sammenlignet med etniske danske, idet det antages, at svækkelsen af det sociale netværk, psykiske lidelser pga. tortur, manglende integration, identitetsproblemer eller kulturelle konflikter kan bidrage til en øget selvmordsrisiko blandt etniske minoriteter.

Nedenfor gives en kort introduktion til de danske studier, der har set på selvmordsadfærd og selvskade blandt indvandrere, asylansøgere, efterkommere samt adopterede. Derefter følger forskningsartiklerne Suicide Risk Among Persons with Foreign Background in Denmark og Deliberate Selfharm in Immigrant Pakistani and Ethnic Danish Adolescent: A Cross-cultural Comparison of Ethnic Differences in Coping Strategies.

I 2001 gennemførte Bille-Brahe en undersøgelse af forekomsten af selvmord og selvmordsforsøg blandt indvandrere og efterkommere. Undersøgelsen af selvmord og selvmordsforsøg blandt indvandrere og deres efterkommere har vist, at der generelt ikke er signifikant højere selvmordsrisiko blandt førstegenerations-indvandrere end blandt etniske danskere, men at der for andengenerations-indvandreres vedkommende er en forhøjet risiko blandt kvinder, hvis forældre kommer fra de mere udviklede lande.

Vedrørende selvmordsforsøg har undersøgelsen vist en markant forhøjet risiko blandt indvandrere og især blandt deres efterkommere, navnligt for kvindelige første-generationsindvandrere fra de mindre udviklede lande. Undersøgelsen omfatter alle indvandrere og deres efterkommere registreret af Danmarks Statistik i årene 1993-1997. Oplysninger om selvmord og selvmordsforsøg er fremkommet ved samkørsler af Danmarks Statistiks registre og henholdsvis Register for Selvmord og Register for Selvmordsforsøg (sidstnævnte kun for Fyns Amt).

En anden dansk undersøgelse (Helweg et al. 2007) viser, at unge adopterede har flere sygehuskontakter pga. selvskade-/selvmordshandlinger end gruppen af unge indvandrere, etnisk danske samt efterkommere.

De unge adopterede adskiller sig fra etnisk danske unge og fra unge indvandrere og efterkommere ved hyppigere at rapportere tristhed og uoverkommeligheds-følelse. I gruppen af adopterede er kontaktraten til sygehuse omtrent tre gange højere blandt unge mænd og dobbelt så høj blandt unge kvinder i forhold til raterne

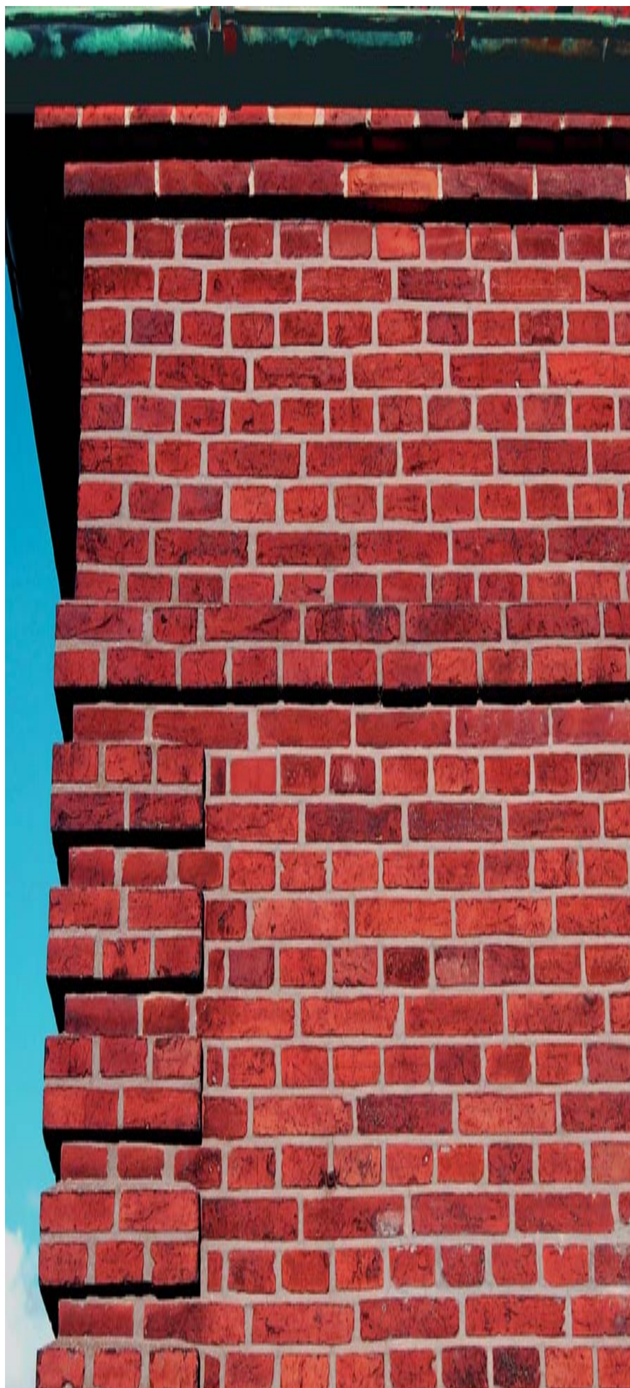
blandt unge etnisk danske. Raterne er højere især på grund af misbrugsrelaterede psykiske lidelser og pga. selvskade og selvmordshandlinger, personligheds- og spiseforstyrrelser.

Et andet dansk studie (Helweg et al. 2007) har påvist, at blandt gruppen af indvandrere, efterkommere, adopterede samt etnisk danske er kontaktraten til sygehuset pga. selvmordshandlinger og selvskade højst blandt unge kvinder.

Blandt adopterede kvinder var raten ca. tre gange højere end blandt etnisk danske kvinder. Kontaktraten for selvmordshandlinger og selvskade var derimod ikke højere blandt indvandrerkvinder sammenlignet med etnisk danske kvinder.

Der findes ikke mange publicerede undersøgelser i Danmark om selvmordsadfærd blandt asylansøgere. Psykolog Mia Antoni Stæhr og overlæge Ebbe Munk Andersen foretog en kvantitativ analyse om selvmordsadfærd blandt asylansøgere over 15 år i perioden 2001–2003 (Stæhr M & Munk E, 2006). Analysen er baseret på data fra indberetninger til Dansk Røde Kors Asylafdeling, samt medicinske journaler på selvmordstruede asylansøgere i Danmark. Selvmordsadfærd, der ikke medførte akutindlæggelser, indgik ikke i analysen. Analysen viste, at selvmordsforsøg blandt asylansøgere var 3,4 gange højere end antallet blandt fastboende borgere i Danmark.

Det er sandsynligt at forhold før og under flugt og udvandring har betydning for risikoen for selvmords - handlinger. Derudover forekom selvmordsadfærd hyppigst blandt asylansøgere på 30-39 år. Ca. 40% af asylansøgere med selvmordsadfærd levede i en kernefamilie. De øvrige var enten ugifte eller gifte, men var alene i Danmark (Stæhr M & Munk E, 2006).



Litteratur:

Bille – Brahe, Unni (2001): Selvmord og selvmordsforsøg blandt indvandrere og deres efterkommere. Center for Selvmordsforskning.

Helveg-Larsen, K.; Kastrup, M; Flachs, E. & Baez, A. (2007). Etniske forskelle i kontaktmønstret til psykiatrisk behandling. Et registerbaseret studie. Videnscenter for Transkulturel Psykiatri, Psykiatrisk Klinik Rigshospitalet, Region Hovedstaden.

Helveg-Larsen, K.; Flachs, E. & Kastrup, M. (2007): Psykisk trivsel, psykisk sygdom, etniske forskelle blandt unge i Danmark. Statens institut for Folkesundhed, Syddansk Universitet. København 2007.

Stæhr M. & Munk E: Selvmordsadfærd blandt asylansøgere i Danmark i perioden 2001-2003. Ugeskrift for Læger 2006 168/17 1650-53.

Nedenfor følger de to forskningsstudier i deres fulde længde om selvmordsadfærd og selvskade blandt etniske minoriteter i Danmark, som Center for Selvmordsforskning har gennemført alene og i samarbejde med eksterne samarbejdspartnere, herunder Center for Registerforskning, Århus og Statens Institut for Folkesundhed.

STUDY I

Suicide Risk Among Persons with Foreign Background in Denmark.

Vanita Sundaram, MA, Ping Qin, MD, Ph.D. and Lilian Zøllner, Ph.D.

Abstract
There is a dearth of knowledge about factors correlated with suicide risk amongst minority groups in Western societies. The present study therefore compared suicide risk amongst persons with foreign background with that of the majority population, to determine whether certain minority groups are at a particular risk for suicide, as well as illuminate gender differences herein. Suicide risk was generally higher amongst persons with foreign background compared with the majority population and the risk was highest amongst Nordic-born persons. Overall, suicide risk was significantly lower amongst Asian-born persons, however there were gender differences in correlations between ethnicity and suicide risk.

Title: Suicide Risk Among Persons with Foreign Background in Denmark.

Authors: Vanita Sundaram [1] (MA Women's Studies), Ping Qin [2](M.D., PhD), Lilian Zøllner [3](PhD)

Noter
[1]National Institute of Public Health, Denmark
[2]National Centre for Register-based Research, Denmark
[3]Centre for Suicide Research, Denmark

Background
Previous research has found correlations between suicide and a lack of social cohesion and integration, as well as weak social relationships or networks (Qin, Agerbo & Mortensen 2003; Berkman, Glass, Brissette & Seeman 2000; Aspinall 2002). It could be argued that the relative social and economic marginalisation of many minority groups from the majority society, as well as weakening of previous family and social networks, amongst other factors could contribute to an elevated suicide risk amongst foreign-born populations. With an increase in migration particularly to Western Europe, there is an increasing focus on the suicide risk amongst different populations – including foreign-born groups. Numerous previous studies, particularly from Western countries, have demonstrated that foreign-born persons have a significantly higher rate of attempted suicide and suicide death compared with the indigenous population of the given society (Raleigh & Balarajan 1992; Burke 1976; Hjern & Allebeck 2002).British studies have primarily focused on suicidal behavior amongst Asian populations in Britain and have determined

that the rate of attempted suicide is particularly high amongst Asian women compared with the native population and Asian men (Neeleman, Mak & Wessely 1997; Raleigh 1996; Johansson, Sundquist, Johansson, Bergman, Qvist & Traskman-Bendz 1997). Other European studies have similarly found that the risk of suicide death is higher amongst foreign-born groups, including populations that do not immediately distinguish themselves culturally or phenotypically from the majority population (Hjern & Allebeck 2002; Johansson et al. 1997).

A few Danish studies have attempted to address suicide risk amongst foreign-born persons in Denmark. A study based on a small community sample, suggested an elevated suicide risk amongst second-generation migrant women whose parents were born in developed countries (Bille-Brahe 2001). Another population-based study indicated a significantly higher risk for suicide in foreign-born women, but a significantly lower risk in foreign-born men as compared to same-sex counterparts who were born in Denmark (Qin et al. 2003). In light of increasing and intense focus on social, economic and health problems amongst refugees, as well as 1st and 2nd generation immigrants in Denmark, we consider it relevant to study self-destructive behavior as an aspect of well being within minority populations. In the present study, we want to address this issue in greater detail, taking into account birth country of both study cases and their parents, which provides greater information about the 'ethnic' background of our cases. We aim to study whether the suicide risk amongst persons with foreign background differs from that of the majority population, to investigate whether certain foreign-born groups have a higher suicide risk than others compared with the majority population, and to examine if there are gender differences in suicide risk amongst various ethnic background groups in Denmark

Material and methods

Person-identifiable data obtained from four population-based registers were linked by means of a unique personal identification number, which is assigned to all individuals born or resident in Denmark. The unique personal identifier is used across all registration systems in Denmark and can be logically checked for errors (Malig 1996).

The Causes of Death register contains information on causes and dates of all deaths in Denmark and has been computerized since 1967. Suicides are coded using the WHO ICD-8 (codes: E950-959) (World Health Organization 1967) until 1993 and afterwards the ICD-10 (codes: X60-84) (World Health Organization 1992). The Integrative Database for Labor Market Research (also called IDA database) contains personal annual information on socio-demographic data, such as income, unemployment, education and cohabitation status for all residents in Denmark (Statistics Denmark 1991). The Danish Psychiatric Central Register contains systematically collected data on psychiatric contacts and has been computerized since 1969 (Munk-Jørgensen & Mortensen 1997). The Danish Civil Registration System contains the unique personal identifier for all individuals born in Denmark and new residents to Denmark, as well as their links to parents. A given individual's relationship to children or parents is indicated by their unique personal identifiers. This relationship should ordinarily be confirmed at birth, through paternity or at adoption. First-degree relatives (children, parents, siblings) can thus be identified using these links. The Civil Registration System also contains a code that specifies the reliability of the coded information. Links to parents are unfortunately not available for all individuals.

Study subjects and variables

Study cases were identified as completed suicides from the Causes of Death register. We restricted our study subjects to suicides aged below 45 years, as these people were more likely to have registered links to parents than older individuals. The final sample comprised all 8137 individuals under the age of 45, who died from suicide during the period 1981-1997 in Denmark. This represented 38% of all suicides in this 17-year period in Denmark.

Comparison population controls were randomly drawn from a 5% random sample of the total population in the IDA database. A nested case-control design was used to select 20 live controls for each case - matched for age, gender and calendar time (i.e. each suicide was matched with 20 individuals who were alive and observed in the 5% random sample from the IDA database on the date of the suicide and who had the same gender and age as the suicide case).

We identified parents of the cases from the Danish Civil Registration System. Individual data on sex, age, birth country, marital status (being single), annual income and labor market status (amount of unemployment), as well as data on birth country of parents were retrieved from the IDA database. This information was recorded as accurate in the year before the year of suicide. We also retrieved data on psychiatric hospitalization history up to the time of suicide from the Danish Psychiatric Central Register. The variable of interest in this study was birth country of both cases and parents. We grouped this variable into 13 mutually exclusive categories according to Statistics Denmark's categorization (See Table 1). We also considered the absence or availability of links to parents potentially reflective of socio-demographic differences such as single-parent households, adoptee subjects, or individuals immigrating to Denmark as adults.

Statistical Methods

Data were analyzed using conditional logistic regression using the PhReg procedure in SAS version 8 (SAS Institute 1999), which yielded odds ratio (OR), 95% confidence intervals and corresponding p-value. Because of the method of sampling population controls from individuals at risk for suicide at the time of matching, the estimated odds ratios can be interpreted as incidence risk ratios (IRR). We adjusted data for marital status, annual income, labor market status and prior history of psychiatric admission because these variables have been demonstrated to be highly

associated with suicide in Denmark (Qin et al. 2003). Test of sex interaction was carried out with likelihood ratio test

Results

Of all 8137 cases included in the present study, 71.73% were men (N=5837) and 28.26% were women (N=2300). Their ages ranged from 9 to 45 years, with a median age of 35 years (35 for men, 37 for women).

Suicide risk and ethnic background

Table 1 shows the distribution of cases and controls according to place of birth as well as the results derived from conditional logistic regression analyses. The largest percentage of cases are Danish-born with no links to parents, and thereafter, Danish-born with Danish-born parents. There are relatively few cases in most of the other population groups, the smallest percentage being Nordic-born persons.

There are significant differences in suicide risk across various ethnic background sub-groups. As shown in Table 1, suicide risk is generally higher among persons with foreign background as compared with the reference population (those born in Denmark with Danish-born parents). The increased risks were eliminated modestly but remained significant in most cases, even when adjusted for individual differences in marital status, income, place of residence, sick leave from job, as well as psychiatric history. Amongst foreign-born persons with no links available for parents, Nordic-born persons had the highest risk of suicide (OR=2.40, 95%CI=1.53-3.80), whereas persons born in Asian countries actually had a significantly lower suicide risk overall (OR=0.61, 95%CI=0.45-0.82).

Amongst foreign-born persons with links to parents, the suicide risk was significantly higher for subjects with at least one Danish-born parent. There were also differences amongst the Danish-born sub-groups, such that the suicide risk was increased for all Danish-born groups compared with the reference population, except for subjects with only foreign-born parents.

Gender differences

The general effect of ethnic background on risk for suicide differs significantly by sex (Test of sex interaction, based the full model: $\chi2=30.728$, df=12, p=0.00217). Table 2 shows that male cases generally outnumber female cases across all population groups in this study. There are gender differences in the suicide risk across, and within sub-groups. Amongst foreign-born subjects with no links to parents, the gender difference in suicide risk was highest amongst persons born in other Nordic countries (Table 2). Nordic-born women had a significantly increased suicide risk (OR=4.67, 95%CI=2.36-9.25), whereas Nordic-born men did not have an elevated suicide risk compared to the reference population. There was also a significant gender difference in suicide risk amongst subjects born in Eastern European countries, such that the suicide risk was significantly elevated for women (OR=1.70, 95%CI=1.02-2.82), but not for men. Amongst Asian-born subjects, the suicide risk was significantly lower amongst men (OR=0.48, 95%CI=0.34-0.68). There was no significant difference amongst women.

Amongst foreign-born subjects with links to parents, both men and women with at least one Danish-born parent were at an increased suicide risk, although the risk was greater for women (OR=2.10, 95%CI=1.22-3.61). Amongst Danish-born subjects, men were at an increased suicide risk across all groups, with the exception of Danish-born subjects with only foreign-born parents. There was no difference in suicide risk for Danish-born women, except amongst women with a Danish-born and a foreign-born parent.

Discussion

The present study had three main findings. Firstly, there were differences in suicide risk for foreign-born individuals compared with Danish-born individuals and the reference population. Secondly, there were differences in suicide risk amongst foreign-born groups. Thirdly, that there were gender differences in the suicide risk within the foreign-born and Danish-born groups.

The findings are in line with the study by Qin et al. (2003) demonstrating gender differences in suicide risk within foreign-born groups and an overall higher suicide risk than their Danish-born same-sex counterparts. Further, Swedish studies based on register data have shown that second generation immigrants (Swedish-born with foreign-born parents) had an elevated suicide risk compared with first generation immigrants (foreign-born with foreign-born parents) in all the minority groups studied (Weitoft, Haglund, Hjern & Rosén 2002). They also found differences in suicide risk amongst the different sub-groups. Other studies on differences in suicide risk between foreign-born and indigenous individuals have largely been based on qualitative data or relatively small clinical samples, whereas our study was based on a large dataset with strong statistical power. Therefore, while previous studies support the findings in the present study, they do not represent an optimal basis for comparison.

A substantial difference between the present study and previous research, which also renders direct comparison difficult, is the identification of 'foreign-born' subjects as having foreign background or minority ethnicity in previous research. Previous – often smaller - studies have been able to directly identify individuals as belonging to specific minority groups. The present study is based on a large, merged dataset and 'difference' from the reference population is inferred from available data on the subjects' birth country, as well as links to parents. We chose to include all immigrants to Denmark in the study, rather than only focus on minority ethnic persons (typically comprising persons with non-Western ethnic background). For subjects born in Denmark from 1978 onwards, birthplace is registered as the parish in which the mother lived at the time of the birth. For subjects born before 1978, birthplace is registered as the parish in which the birth took place. If the birth is registered as having occurred abroad, the specific country or continent is indicated. Given the fact that we have only considered birth country or continent of the cases and parents, we believe, that our results, to some extent,

One very interesting finding is the significantly increased suicide risk amongst persons born in other Nordic countries. This is highly consistent with previous studies showing that suicide rates are high amongst Nordic immigrants (Johansson, Sundquist, Johansson, Qvist & Bergman1997; Weitoft et al. 2002) and in Nordic countries in general. It has been argued that this may be due to a low level of social cohesion (Sauvola, Rasanen, Joukamaa, Jokelainen, Jarvelin & Isohanni 2001). We argue that social isolation in terms of lacking social network and sparse contact to family may be relevant to the elevated suicide rates. Alternatively, the finding may be reflective of the relatively small number of cases in this population group, in the present study. However, there were low numbers of cases in all the minority groups in the study, so the significantly increased suicide risk in this particular population group might still be indicative of other cultural or social factors.

We hypothesized that the availability of links to parents may potentially be reflective of socio-demographic differences, which have previously been associated with differences in suicide risk. In the case of foreign-born subjects, the lack of links to parents may simply be reflective of the subject's recent migratory status in Denmark or alternatively, reflective of the subject's age (the parents of older subjects may have died before the Civil Registration System was established). In the case of Danish-born and foreign-born subjects, where links to one or both parents are missing, we can consider possible explanations about family structure e.g. single-parent families, adoptive families etc. (Weitoft et al. 2002; Sauvola et al. 2001; Hjern, Lindblad & Vinnerljung 2002). Both these factors have been documented as being correlated with an increased suicide risk in different populations. There is a significantly large proportion of Danish-born cases where no links to parents are registered. The most likely explanation for this is that the present study includes all suicides registered since 1981, at which time the oldest subjects were 45 years old. The Civil Registration System was implemented in 1968 and may therefore lack links to parents of cases born in 1936 and onwards. Parents who died before the implementation of the Civil Registration System had no unique personal identification number and therefore, links cannot be made to their children.

In the present study, data were adjusted for a number of confounding factors that we believed might independently influence suicide risk. These were marital status (being single), amount of unemployment, annual income and prior history of psychiatric admission. We found that differences in suicide risk between the different foreign-born groups and gender differences in suicide risk with the different sub-groups existed even after controlling for confounding factors. Overall, the suicide risk was highest for Nordic-born cases, and this pattern was true for both men and women. However, the increased risk amongst foreign-born cases was significant across more sub-groups for women than for men and the odds were significantly higher for the individual sub-groups for women, than for men. There may be other factors associated with suicide that have not been accounted for in the present study. These may include exposure to violence or sexual assault and other health risks that do not necessarily manifest themselves in hospitalization or psychiatric admission e.g. alcohol disorders.

Previous research has shown that suicide attempts are more prevalent amongst women than amongst men, while completed suicides are far more common amongst men (Canetto & Lester 1995; Canetto & Sakinofsky 1998;Weismann 1974). The exception to this well-documented and accepted trend is the case of China and to a lesser extent, India (Phillips, Li & Zhang 2002; Aaron, Joseph, Abraham, Muliyil, George, Prasad, Minz, Abraham & Bose 2004), where attempted and completed suicide is significantly more prevalent amongst women. However, the dominant trend could not be confirmed by the present study either, as the increased suicide risk amongst foreign-born groups was significant only for women, as also supported by a previous Danish study (Qin et al. 2003). Here again, factors such as lack of social networks and contact to family members may explain the higher suicide risk amongst women; they may be more socially and economically marginalized than their male counterparts. Interestingly, the suicide risk was significantly elevated for men, but not for women amongst Danish-born groups – thus confirming the 'standard' suicide picture. This finding indicates the need to examine other factors, such as cultural variables in future work on differences in suicide risk across population groups. The data indicate that overall, the confounders explained less of the difference in suicide risk for groups with foreign-backgrounds than for Danish-born groups, suggesting that there may be an association between birth country and suicide, which is independent of the confounders we adjusted for in the present study.

Future work

More work needs to be conducted into investigating high-risk groups and developing special prevention strategies for these target populations. Although we were not able to specifically identify ethnicity based on our register data, the study generated interesting results in relation to the differences found in suicide risk between the different population groups. In Denmark, future studies have to consider the problems involved in classifying persons as 'Danish' and 'foreign' using this method. The third generation of minority ethnic migrants in Denmark will have Danish-born parents and be Danish-born themselves. They will according to Statistics Denmark's definitions thereby be categorized as ethnic Danes. This could present a methodological problem in terms of illuminating potential cultural and ethnic factors in suicidal behavior.

Conclusion

The results of the present study indicate that there are differences in the suicide risk amongst foreign-born persons and Danish-born individuals in Denmark. It was found that of foreign-born subjects, it was Nordic-born persons who had the highest odds for suicide death. Migration to Denmark from the Nordic countries

is a long-standing phenomenon and it could be argued that this minority group resembles the majority population very closely in terms of culture and religion. Thus, it is an interesting finding that the suicide risk appears to be highest for this foreign-born group compared with the reference population – one that warrants further investigation.

Acknowledgments & References

The project was funded by the Ministry for Social Affairs, at the recommendation of the National Reference Group for Prevention of Suicide and Suicide Attempts (2001-2004).

Aaron R., Joseph A., Abraham S., Muliyil J., George K., Prasad J., Minz S., Abraham VJ., & Bose A. (2004). Suicide in young people in rural Southern India. Lancet 363: 1117-1118.

Aspinall P.J. (2002). Suicide amongst Irish migrants in Britain: a review of the identity and integration hypothesis. International Journal of Social Psychiatry 48: 290-304.

Berkman L.F., Glass T., Brissette I., Seeman T.E. (2000). From social integration to health: Durkheim in the new millennium. Social Science and Medicine 51: 843-57.

Bille-Brahe U. (1987). Suicide and social integration. A pilot study of the integration levels in Norway and Denmark. Acta Psychiatrica Scandinavica Supplement 336: 45-62.

Bille-Brahe U. (2001) Selvmord og selvmordsforsøg blandt indvandrere og deres efterkommere. Odense: Center for Selvmordsforskning

Burke A.W. (1976). Sociocultural determinants of Attempted Suicide Among West Indians in England and Wales. British Journal of Psychiatry, 129: 261-266.

Canetto S.S & lester D. (eds.) (1995) Women and suicidal behavior. New York: Springer.

Canetto S.S. & Sakinofsky I. (1998). The gender paradox in suicide. Suicide and Life-threatening Behavior 28: 1-23.

Hjern A. & Allebeck P. (2002). Suicide in first- and second-generation immigrants in Sweden: a comparative study. Social Psychiatry and Psychiatric Epidemiology 37: 423-9.

Hjern A., Lindblad F., Vinnerljung B. (2002). Suicide, psychiatric illness, and social maladjustment in intercountry adoptees in Sweden: a cohort study. Lancet 360: 443-8.

Johansson L.M., Sundquist J., Johansson S.E., Bergman B., Qvist J., Traskman-Bendz L. (1997). Suicide among foreign-born minorities and Native Swedes: an epidemiological follow-up study of a defined population. Social Science and Medicine 44: 181-7.

Malig C. (1996). The Civil Registration System in Denmark. International Institute for Vital Registration and Statistics Technical Paper 66; 1-9.

Mortensen PB, Agerbo E, Erikson T, Qin P., & Westergaard-Nielsen N. (2000). Psychiatric illness and risk factors for suicide in Denmark. Lancet 355: 9-12

Munk-jorgensen P. & Mortensen P.B. (1997). The Danish Psychiatric Central Register. Danish Medical Bulletin, 44: 82-84.

Neeleman J., Mak V., & Wessely S. (1997). Suicide by age, ethnic group, coroners' verdicts and country of birth. A three-year survey in inner London. British Journal of Psychiatry 171: 463-7.

Phillips M.R., LI X. & Zhang Y. (2002). Suicide rates in China, 1995-1999. Lancet 359: 835-840.

Qin P., Mortensen P.B., Agerbo E., Westergaard-Nielsen N.& Eriksson T. (2000). Gender differences in risk factors for suicide in Denmark. British Journal of Psychiatry 177: 546-550

Qin P., Agerbo E., Mortensen PB. (2003). Suicide risk in relation to socio-economic, demographic, psychiatric, and familial factors: a national register-based study of all suicide in Denmark, 1981-1997. American Journal of Psychiatry 160: 765-772.

Raleigh V.S., & Balarajan R. (1992). Suicide and Self-Burning among Indians and West Indians in England and Wales. British Journal of Psychiatry, 129: 365-368.

Raleigh V.S (1996). Suicide patterns and trends in people of Indian subcontinent and Caribbean origin in England and Wales. Ethnicity and Health 1: 55-63.

Sauvola A., Rasanen P.K., Joukamaa M.I., Jokelainen J., Jarvelin M.R., Isohanni M.K. (2001). Mortality of young adults in relation to single-parent family background. A prospective study of the northern Finland 1966 birth cohort. European Journal of Public Health 11: 284-6.

Statistics Denmark. (1991) IDA – an integrated database for labor market research. Main report. Statistics Denmark, Copenhagen.

Weismann M.M. (1974). Sex differences in the epidemiology of suicide attempts. Archives of General Psychiatry 34: 98-111.

Weitoft G.R., Haglund B., Hjern A. & Rosén M. (2002). Mortality, severe morbidity and injury among long-term lone mothers in Sweden. International Journal of Epidemiology 31:573-580.

World Health Organisation. (1967) Manual of the international classification of diseases (ICD-8). WHO, Geneva.

World Health Organisation. (1992) The ICD-10 classification of mental and behavioral disorders: clinical descriptions and diagnostic guidelines. WHO, Geneva.

Table 1:

Distribution of cases and controls in detailed categories according place of birth as well as the main results from conditional logistic regression analyses, total subjects.

Ethnic background	Number (in%)		Risk for suicide (95%CI)	
	Cases	Controls	Crude OR[‡]	Adjusted OR[§]
Danish-born with danish-born parents	2862 (35.2)	64215 (39.5)	1	1
Danish-born with a danish-born parent and a foreign-born parent	457 (5.6)	7241 (4.5)	1.43 (1.29-1.59)	1.22 (1.08-1.37)
Danish-born with only foreign-born parent(s)	68 (0.8)	899 (0.6)	1.73 (1.34-2.22)	1.11 (0.83-1.48)
Danish-born with link to one danish-born parent	333 (4.1)	4267 (2.6)	1.78 (1.58-2.01)	1.22 (1.07-1.41)
Danish-born with no link to parents	3930 (48.3)	77667 (47.7)	1.27 (1.15-1.39)	1.17 (1.05-1.30)
Foreign-born with at least one danish-born parent	123 (1.5)	1136 (0.7)	2.32 (1.87-2.86)	1.77 (1.39-2.26)
Foreign-born with only foreign-born parent(s)	46 (0.6)	644 (0.4)	1.11 (0.85-1.43)	1.02 (0.77-1.36)
Born in Greenland[†]	66 (0.8)	1050 (0.7)	1.53 (1.18-1.98)	1.22 (0.91-1.62)
Born in other Nordic countries[†]	35 (0.4)	165 (0.1)	5.18 (3.57-7.51)	2.40 (1.53-3.80)
Born in EU (excl. Nordic) and North America[†]	79 (1.0)	1809 (1.1)	1.05 (0.83-1.33)	1.06 (0.82-1.36)
Born in Eastern European countries[†]	54 (0.7)	1283 (0.8)	1.01 (0.76-1.33)	1.00 (0.73-1.35)
Born in Asian countries[†]	55 (0.7)	1675 (1.0)	0.76 (0.58-1.00)	0.61 (0.45-0.82)
Born in Africa or other countries[†]	29 (0.4)	689 (0.4)	1.00 (0.68-1.45)	0.85 (0.57-1.28)

[†] : Persons born in foreign countries and with no links to parents available in Denmark

[‡]: : Crude odds ratios were adjusted for age, sex and calendar time through matching;

[§]: : Adjusted odds ratios were further adjusted for marital status, annual income, place of residence, sickness absence from job and psychiatric history.

Table 2:

Distribution of numbers and the main results from conditional logistic regression analyses for females and males separately.

Ethnic background	Number (Cases / Controls)		Adjusted OR§ (95% CI)	
	Females	Males	Females	Males
Danish-born with Danish-born parents	583 / 13954	2279 / 50261	1	1
Danish-born with a Danish-born parent and a foreign-born parent	118 / 1598	339 / 5643	1.44 (1.12-1.85)	1.16 (1.02-1.33)
Danish-born with only foreign-born parent(s)	20 / 205	48 / 694	1.45 (0.82-2.55)	1.02 (0.73-1.43)
Danish-born with link to one Danish-born parent	82 / 905	251 / 3362	1.30 (0.95-1.78)	1.20 (1.03-1.40)
Danish-born with no link to parents	1343 / 27046	2587 / 50621	1.10 (0.90-1.35)	1.23 (1.08-1.39)
Foreign-born with at least one Danish-born parent	28 / 243	95 / 893	2.10 (1.22-3.61)	1.70 (1.30-2.23)
Foreign-born with only foreign-born parent(s)	10 / 114	36 / 530	1.29 (0.65-2.57)	0.96 (0.71-1.32)
Born in Greenland†	24 / 465	42 / 585	1.04 (0.62-1.75)	1.29 (0.90-1.84)
Born in other Nordic countries†	20 / 84	15 / 81	4.67 (2.36-9.25)	1.52 (0.80-2.91)
Born in EU (excl. Nordic) and North America†	22 / 433	57 / 1376	1.16 (0.68-1.98)	0.99 (0.74-1.32)
Born in Eastern European countries†	23 / 407	31 / 876	1.70 (1.02-2.82)	0.79 (0.53-1.17)
Born in Asian countries†	15 / 390	40 / 1285	1.24 (0.69-2.23)	0.48 (0.34-0.68)
Born in Africa or other countries†	12 / 156	17 / 533	1.71 (0.83-3.52)	0.61 (0.36-1.02)

† :Persons born in foreign countries and with no links to parents available in Denmark;

§: Adjusted odds ratios were adjusted for marital status, annual income, place of residence, sickness absence from job and psychiatric history as well as sex, age and calendar time through matching..

* Test of sex interaction, based the full model: $\chi 2=30.728$, df=12, p=0.00217

STUDY II

Deliberate self-harm in immigrant Pakistani and ethnic Danish adolescents: A cross-cultural comparison of ethnic differences in coping strategies

Cand. Psyk. Soren Moller, Cand. mag. Iben K. Stephensen, Cand. scient. oecon Erik Christiansen,Ph. D. Lilian Zollner.

Abstract
Objective: The differences in coping strategies and prevalence of deliberate self-harm (DSH) and suicidal ideation among immigrant Pakistani and ethnic Danish adolescents were investigated to determine whether their reported differences in coping strategies would vary by ethnicity.

Design: Six-hundred-and-sixty 8th and 9th grade adolescents (60 Pakistanis and 600 ethnic Danish controls) completed the Danish version of the CASE-questionnaire to provide a measure of their self-reported coping strategies, suicidal ideation and DSH.

Results: Statistical analysis of the subjects' responses indicated significant differences between the ethnic groups. The prevalence of DSH was more than four times higher in ethnic Danish Adolescents than in immigrant Pakistani adolescents. Suicidal ideation was more than twice as frequent in ethnic Danes than in Pakistani adolescents. Pakistanis reported using social support and religious coping strategies when being sad or upset more often than did ethnic Danish adolescents.

Conclusions: Immigrant Pakistani and ethnic Danish adolescents differ significantly as to prevalence of suicidal ideation and DSH and in regard to which coping strategies are utilized when being sad or upset. Implications of these results are discussed in terms of social support and cultural and religious differences in attitudes towards suicidal behaviour.

Keywords: Deliberate Selfharm, Coping strategies, Suicidal ideation, Social support, religion.

Introduction
Over the past few decades adolescent suicidal behaviour and suicidal ideation have become major concerns for public health and mental health practitioners, as well as for parents, teachers, and others daily involved with this age group. Some studies have concluded that non-fatal deliberate self-harm (DSH) is common in adolescents in the general population, especially in females (Hawton et al. 1992; Zollner 2002). In a Danish study based on results from the County of Ringkobing, Zollner (2002)

concluded that 13.0 per cent of the 13-17-year-old females (N = 284), and 2.9 per cent of the 13-17-year-old males (N = 344) in the general population had attempted DSH. 5.6 per cent of the adolescent females and 2.9 per cent of the male adolescents had chosen drug overdose (self-poisoning) as preferred method of DSH. Although there have been some advances in the understanding of this behaviour, some aspects remain uncertain. Consequently, prevention and management (treatment) are often difficult, particularly in an area where clinical and research resources are scarce.
In many cases DSH represents a transient period of distress; in other instances, however, it is an important indicator of morbidity (mental health problems) and mortality (risk of suicide). Self-harm among adolescents increases the likelihood of future suicidal behaviour (Goldacre and Hawton 1985). Apart from the above-mentioned Danish study (Zollner 2002), DSH in adolescents in Denmark has received little, if any, attention among researchers. Also ethnic issues have been neglected in the empirical literature. We failed to find any Danish research that specifically compared ethnic or racial differences in DSH among adolescents. The lack of knowledge has made it difficult to initiate suicide prevention programs and offer adequate treatment and support to those adolescents most at risk.

The so-called CASE Study (Child and Adolescent Self-harm in Europe) provides new and useful knowledge about DSH among young adolescents. Compared with the other participating European countries, the Danish edition of the CASE Study questionnaire is extended and contains questions concerning ethnic identity and religious-spiritual coping strategies, which provide a unique opportunity to make cross-cultural comparisons of coping activities, suicidal ideation and prevalence and reasons for DSH among ethnic minorities living in Denmark and ethnic Danish adolescents. In this context, the term 'deliberate self-harm' is used to refer to any deliberate non-habitual and non-fatal act that causes self-harm or may have the potential to do so:

Definition of deliberate self-harm (Hawton et al. 2002)

An act with a non-fatal outcome in which an individual deliberately

- Initiated behavior (such as self cutting, hanging), which they intend to cause self-harm; and/or
- Ingested a substance in excess of the prescribed or generally recognized therapeutic dose; and/or
- Ingested a recreational or illicit drug (which was an act that the person regarded as self-harm); and/or
- Ingested a non-ingestible substance or object

Suicidal ideation

Evidence suggests that the process leading to suicide is not an impulsive act, but the culmination of a pathological regression, a continuum beginning with suicidal ideation, continuing to DSH and attempted suicide, and ending with completed suicide (Cole et al. 1992; Deane et al. 2001). Among the 15 common single predictors of suicide, suicidal ideation rank number 3 (Maris et al. 1991). Suicidal ideation is a broad term referring to cognitions that can vary from fleeting thoughts that life is not worth living, over concrete well-thought-out plans for killing oneself, to an intense delusional preoccupation with self-destruction (Goldney et al. 1989). Hopelessness has been found to be a strong predictor of suicidal ideation (Joiner and Rudd 1996) and interpersonal hopelessness seems to be related to the two most common reasons for not disclosing suicidal thoughts, namely a belief that nobody can help you solve your problems and the unavailability of somebody to confide in (Eskin 2003). Individuals who are acutely suicidal may be reluctant to seek help because they have pessimistic and negative expectations about the value of such help. Suicidal ideation, thus, may act as a potential barrier to help seeking. Several studies have supported this notion. Studying a sample of 17,193 non-clinical teenagers, Saunders et al. (1994) found that higher suicidal ideation was related to a lower probability of distressed adolescents actually seeking help. Carlton and Deane (2000) supported this finding using a sample of 221 non-clinical 14-18year old high-school students. The researchers found an association between higher levels of suicidal ideation among adolescents and lower help-seeking intentions and concluded that suicidal ideation was a significant and unique negative predictor of adolescent help-seeking intentions. They speculated that the process may be, in part, a function of adolescent developmental tasks associated with the development of independence, and suggested that adolescents might see the decision to live or die as one aspect of their lives that they can control (Deane et al. 2001). The relationship between social support (help-seeking) as a coping strategy and suicidal ideation and DSH will be elaborated later on in the article.

Coping theory

There are several documented models of how coping may alter risk and/or reduce the impact of life stress. A frequently used model of coping is the interactional model of stress developed by Lazarus and Folkman (1984), which proposes that when people are stressed, they perceive the stressor to be potentially threatening and so appraise it in terms of their perceived ability to cope. The utilization of a coping strategy is a response to the stressor. Coping, according to Lazarus and Folkman (1984: 141), thus, consists of "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person'. They maintain that when faced with stress, the individual employ coping strategies that help them to regulate emotionally distressing reactions, such as symptoms of depression or anxiety. Self-harm may be perceived as a way of coping that is utilized to release the anxiety of not being able to manage with the demands placed on a person. The relevance of the Lazarus and Folkman (1984) model of coping to the population of Asian women has been stated by several authors (e.g. Hussain and Cochrane 2003).

Later - Folkman and Lazarus (1985) grouped the types of coping into two main categories by making a distinction between emotion-focused coping, entailing efforts to regulate emotional distress and problem-focused coping, which directs attention towards the problem and looks for ways of solving it. Recently Parker and Endler (1996) have elaborated on this model and suggested an alternative way of grouping coping types, making avoidance coping a main category along with problem-focused and emotion-focused coping. Avoidance strategies can be further categorized as involving person-oriented responses (social diversion) or task-oriented responses (distraction) (Edwards and Holden 2001).

Coping style may act as a mediator between stressful situations and negative health outcomes, including suicidal behaviour (Josepho and Plutchik 1994). Whereas problem-focused coping is associated with lower suicidality (Curry et al. 1992), suicidal adolescents tend to utilize more emotion-focused than problem-focused strategies when coping with stressful situations (Puskar et al. 1992; Wilson et al. 1995). Also avoidance coping is associated with negative mental health outcomes, including suicidal behaviour, in that anxious, depressed, and/or suicidal individuals tend to use a significantly higher proportion of avoidance strategies in their overall coping repertoire compared to those displaying no clinical symptoms (Cooper et al. 1992; Wong et al. 1994). The stress–coping model focuses on the role of life stress and maladaptive coping variables as factors that may increase an adolescent's vulnerability to DSH. Orbach et al. (1990) observed that avoidance was the general coping style of both suicide attempters and ideators.

In another study, individuals in both clinical as well as non-clinical samples who scored high on a measure of suicidal probability tended to report a problem-solving style characterized by avoidance (D'Zurilla et al. 1998). On the basis of the stress–coping model, we hypothesize that adolescents who employ maladaptive and avoidance coping mechanisms, such as reluctance to seek help, will be at increased risk for suicidal ideation and DSH.

People who harm themselves have been hypothesized to suffer from deficient coping and problem-solving skills, which leave them vulnerable to adopting DSH as a coping strategy. DSH may be viewed from four different perspectives: as (a) a release from distress, i.e. as a coping strategy, (b) ending it all, (c) effecting a change, and finally as (d) (taking) control (Marshall and Yazdani 1999). DSH is in itself a coping strategy, a relief from extreme degrees of emotional pain, an aid to 'calm down' and avoid a breakdown. In self-cutting the body can act as a vehicle through which emotional distress can be released, rendering self-harm of the body a way of channelling anger and emotional pain.

Coping and ethnicity

Although an epidemic of self-harm, especially amongst Asian female adolescents have been reported, e.g. in the UK (Marshall and Yazdani 1999), the issue of ethnicity as a factor in DSH and coping has received little attention. Surprisingly, there remains a paucity of research that investigates the different types of coping strategies that minority adolescents utilize to manage stress, sadness and adverse life events. Therefore, additional empirical research is needed to clarify the impact of ethnicity on stress and maladaptive coping, and their synergistic effect on mental health outcomes, such as DSH or suicidal ideation.

The vast majority of the research on suicidal behaviour among adolescents has been conducted with samples of Caucasian adolescents. This is partly attributable to the fact that Caucasian adolescents are more likely to be seen, and thus studied, in clinical settings (Garrison et al. 1991), and because much of the adolescent research has used college samples, which are also predominantly white (Heacock 1990; Molock et al. 1994). This is true for both the US and in Denmark. Moreover, some of the preferred methods within suicidology tend to neglect ethnic differences. Discrepancies and variations in rates of suicidal behaviour between ethnic groups within a country often remain hidden in aggregate figures.

Aims

The present paper has two main objectives. First and foremost, we intend to determine the prevalence of DSH and suicidal ideation amongst immigrant Pakistani and ethnic Danish adolescents. The number of immigrants in Denmark has more than doubled within the past 20 years and in the same period the number of descendents from immigrants has quadrupled. There are several reasons for focusing on Pakistanis: Compared to other ethnic groups, Pakistani immigrants constitute the ethnic group of which most members percent-wise (51 per cent) have resided in Denmark for more than 15 years. This fact is of critical importance for the social integration of children and adolescents. Secondly, studies have shown that Pakistanis living in Denmark are well integrated educationally and occupationally (Just Jeppesen 1989). The second aim of the paper is to investigate differences and similarities in coping strategies among immigrant Pakistani and ethnic Danish adolescents: How do the two groups cope with sadness and being upset? Can ethnic variation in coping strategies help explain differences in the prevalence of DSH and suicidal ideation?

Method

Design and participants

An anonymous self-report questionnaire was given to a total of 5200 13-18 year-old pupils in the County of Funen, as well as to 870 13-18 year-old ethnic diverse pupils in the Counties of Aarhus and Copenhagen. A total of 205 public schools from the three county regions agreed to participate in the study. Some of the schools were purposively selected because of their population of ethnic diverse students. Out of the total of 6070 pupils, we identified 60 Pakistanis (cases) and selected 600 ethnic Danes (controls), in order to match the cases by age and gender. It was, however, not possible to match one male Pakistani aged 17 years with males of the same age in the control group. As a consequence, the male Pakistani was matched with

males at the age of 16-years in the control group.

The questionnaire covered a wide range of issues, such as suicidal ideation, DSH (occurrence, method, frequency, context, and experiences), personal characteristics relating to mood, coping strategies, impulsivity, and general health behaviour (e.g. eating and smoking habits), as well as more open-ended questions regarding the circumstances surrounding suicidal ideation or DSH. The questionnaire included self-perceived ethnic identity. In the present study we singled out five questions for analysis. In question 46: "What do you do when you are sad or upset?' the pupils had three response options: 'Never', 'sometimes', or 'often'.

The responses were divided into two categories: 'Never' was categorized as 'no', and 'sometimes' and 'often' were categorized as 'yes'. These results were compared and cross-referenced to question 15: 'Have you ever taken an overdose of pills or any kind of medicine, or in any way tried to harm yourself (e.g. by cutting yourself)?' (measuring DSH), as well as to question 34: 'Have you ever seriously considered taking an overdose or in any way harming yourself without going through with it?' (emphasis in original), measuring suicidal ideation.

Again the pupils had three response options: 'No', 'yes once', and 'yes multiple times'. The latter two were comprised into a 'yes' for statistical procedure. In addition we cross-referenced question 34 with question 36: 'Did you try to talk to someone about it and your problems?' and, in case of a positive answer, we focused on question 37: 'with whom?'. The responses to question 37 were divided into five categories: (a) with mom and dad, (b) someone in the family, (c) a friend, (d) a teacher, a physician, a social worker, a psychologist, a psychiatrist, or (e) a telephone help line or counselling centre.

46. What do you do when you are sad or upset?

a. Talk to someone
b. Blame myself
c. Get angry
d. Stay in my room
e. Reflect on how I have handled similar situations in the past
f. Drink alcohol
g. I try not to think about it
h. Try to work things out
i. Play computer or video games in my room
j. Watch TV in my room
k. Listen to music in my room
l. Pray
m. Read scripture
n. Meditate
o. Write letters or diary
p. Run, take a walk or bicycle

Statistical methods

We used 2x2 tables to identify differences in attitude between cases and controls. Fisher's exact test was used for testing level of significance in differences in attitude. Fisher's exact test is the probability of observing a table that gives at least as much evidence of association as the one actually observed, given that the null hypothesis is true. The hypergeometric probability, P, of every possible table is computed, and the p-value is defined as

$$PROB = \sum P$$

One-sided tests are defined in terms of the frequency of the cell in the first row and first column; the (1,1) cell. For a left-sided alternative hypothesis, A is the set of tables where the frequency in the (1,1) cell is less than or equal to that of the observed table. A small left-sided p-value supports the alternative hypothesis that the probability of an observation being in the first cell is less than that expected under the null hypothesis of independent row and column variables. Test probabilities and significance level at $\alpha = 5$ per cent were computed using SAS 8.02.

Results

As mentioned above, we singled out 60 Pakistani adolescents (cases) and matched each of them with 10 ethnic Danish adolescents (controls) of same age and gender. The median age for the population was 15.02 years with standard deviation of 0.54 years. The women were slightly younger (median: 14.95 years) than the men (median: 15.15 years). The gender distribution was 231 (35 per cent) males and 429 females (65 per cent).

Immigrant Pakistani and ethnic Danish adolescents were significantly different in regard to prevalence of DSH. Only 2 (1 male; 1 female) out of the 60 Pakistanis had attempted DSH (3.3 per cent), compared to 87 (11 males; 76 females) of the 600 ethnic Danes (14.5 per cent). There were significantly fewer ethnic Danish males than expected who had harmed themselves and a significantly higher number of ethnic Danish females than expected who had engaged in DSH ($p < 0.001$). For females, the rate of DSH among Pakistanis was significantly lower than expected ($p = 0.003$). The prevalence of DSH among Pakistani males was slightly higher than expected, insignificant however.

Regarding suicidal ideation, 9 (15 per cent) out of 60 Pakistanis (2 males; 7 females) reported having seriously thought about harming themselves. Again for females, the rate of suicidal ideation among Pakistani adolescents was significantly lower than expected ($p < 0.001$). The frequency of ideation among male Pakistanis was insignificant. As to suicidal ideation among ethnic Danes, 229 (36 males; 193 females) out of the total of 600 (38.2 per cent) had seriously thought about harming themselves. Both sexes displayed higher rate of ideation than expected, only significant for females, however ($p < 0.001$).

Table 1: Coping strategies among Pakistani and ethnic Danish adolescents

Question 46: "What do you do when you are sad or upset?", positive answers by gender.

Coping strategies	Immigrant Pakistanis				Ethnic Danes			
	Males		Females		Males		Females	
	N	%	N	%	N	%	N	%
46a. Talk to someone	16 out of 21	76.2	35 out of 39	89.7	167 out of 207	80.7	365 out of 388	94.7
b. Blame myself	13 out of 21	61.9	22 out of 38	57.9 *	108 out of 207	52.2	279 out of 386	72.3 *
c. Get angry	18 out of 21	85.7	35 out of 39	89.7	174 out of 207	84.1	352 out of 388	90.7
d. Stay in my room	06 out of 20	30.0 **	28 out of 39	71.8 **	167 out of 209	79.9 **	349 out of 389	89.7 **
e. Reflect on how I have handled similar situations in the past	15 out of 21	71.4	32 out of 39	82.0	139 out of 208	66.8	280 out of 387	72.4
f. Drink alcohol	04 out of 21	19.0	0 out of 39	0.0 **	36 out of 208	17.3	63 out of 386	16.3 **
g. I try not to think about it	19 out of 21	90.5	28 out of 39	71.8	162 out of 208	77.9	321 out of 384	83.6
h. Try to work things out	21 out of 21	100.0	36 out of 39	92.3	190 out of 206	92.2	375 out of 384	97.7
i. Play computer or videOgames in my room	13 out of 21	61.9	10 out of 39	25.6	147 out of 208	70.7	69 out of 388	17.8
j. Watch TV in my room	13 out of 21	61.9 *	20 out of 39	51.3 **	169 out of 207	81.6 *	300 out of 387	77.5 **
k. Listen to music in my room	16 out of 21	76.2 *	31 out of 38	81.6 **	190 out of 207	91.8 *	365 out of 384	95.1**
l. Pray	15 out of 21	71.4 **	32 out of 39	82.1 **	27 out of 207	13.0 **	112 out of 389	28.8 **
m. Read scripture	11 out of 21	52.4 **	24 out of 38	63.2 **	6 out of 207	2.9 **	15 out of 388	3.9 **
n. Meditate	07 out of 20	35.0 **	8 out of 34	23.5 *	12 out of 208	5.8 **	41 out of 388	10.6 *
o. Write letters or diary	03 out of 21	14.3	17 out of 39	43.6 **	9 out of 208	4.3	249 out of 39	64.2 **
p. Run, take a walk or bicycle	16 out of 21	76.2	22 out of 39	56.4 **	123 out of 209	58.9	308 out of 388	79.4 **

Significance levels: * $p < 0.05$; ** $p < 0.01$

In table 1, the coping strategies amongst Pakistani and ethnic Danish adolescents are displayed. We intend to focus on social and religious issues in coping activities. Of the 9 Pakistani adolescents who reported having suicidal ideation, 6 had tried to talk to someone about it and their problems: two had talked to their parents, none had expressed themselves to anyone in their family, six had disclosed their distress to a friend ($p = 0.002$), one had communicated his or her distress to a teacher, a physician, a psychologist, or a psychiatrist, and two had contacted a telephone help line or sought counselling at a centre. Of the 229 ethnic Danish adolescents who reported having ideation, 101 had tried to talk to someone about it and their problems: 34 reported having talked to their parents about their ideation and problems ($p = 0.011$), 20 had consulted someone in their family ($p = 0.034$), 71 had talked to a friend ($p < 0.001$), 20 had consulted a teacher, a physician, a psychologist, or a psychiatrist ($p < 0.001$), and 14 had used a telephone help line or sought counselling at a centre ($p = 0.005$).

Among the ethnic Danes, 53 answered 'no' to question 46a (cf. Table 1). 14 of the 53 had harmed themselves, which is above expected, non-significant however ($p = 0.06$). In contrast, the two Pakistani adolescents, who had harmed themselves, did in fact answer 'yes' to question 46a. More Danish males and females than expected reported staying in their room when they are sad or upset. Slightly more Danish adolescents than expected of both sexes reported watching TV (question 46j) or listening to music (question 46k) when they are sad or upset. In contrast, significantly fewer adolescent Pakistani males ($p < 0.001$) and females ($p = 0.003$) than expected reported staying in their room when they are sad or upset. This was in accordance with the results on the other coping items, e.g. 'watch TV in my own room' (Pakistani males, $p = 0.037$; Pakistani females, $p < 0.001$), and 'listen to music in my own room' (Pakistani males, $p = 0.038$; Pakistani females, $p = 0.0051$).
Concerning alcohol consumption, 99 of the 600 ethnic Danish controls reported using alcohol as a means of coping with distress or sadness, compared to only 4 out of the 60 cases (none of them female). Thus, significantly fewer female Pakistani adolescents than expected utilize alcohol to cope with distress and sadness ($p < 0.01$).

These ethnic differences in coping strategies become pronounced when we turn to the religious or spiritual types of coping: prayer, scripture reading, and meditation (46l, 46m, 46n). Significantly more Pakistani males ($p < 0.001$) and females ($p < 0.001$) than expected pray and/or read scripture when they are sad or upset. Furthermore, a significantly higher number of Pakistani males ($p < 0.001$) and females ($p = 0.031$) than expected meditate when they are sad or upset. In contrast, fewer Danish males and females than expected utilize prayer, scripture reading, and/or meditation as coping strategies when they are sad or upset. This result was cross-referenced with suicidal ideation and DSH. Of the ideators, Pakistanis as well as Danish adolescents, we found no statistical significant associations between suicidal ideation and religious coping strategies, prayer, scripture reading, and meditation. Due to the low instances of DSH among the Pakistani adolescents, we decided not to cross-reference coping strategies and DSH for this group.

Discussion
This was an investigative study of the prevalence of DSH and suicidal ideation in immigrant Pakistani and ethnic Danish adolescents, as well as an attempt to identify some of the factors that may influence the occurrence of DSH in the two ethnic groups. It was hypothesized that maladaptive avoidant coping would be related to the occurrence of DSH and ideation. Pakistani and ethnic Danish pupils were found to differ along several important coping variables, particularly social and religious coping strategies.

Several studies have documented an association between minority status and increased risk of psychological distress in adolescents, e.g. depression (Roberts et al. 1997; Swanson et al. 1992; Vega et al. 1993). In a study exploring the coping strategies used by Asian women suffering from depression, Hussain and Cochrane (2003) revealed that some of the common means of coping were in fact 1) religion and prayer, 2) talking to someone (social support), and 3) self-harm. Much of the same issues are targeted in the present study. It has been stated frequently that minority youth face chronic stressors such as cultural conflicts, negative stereotypes, and disadvantaged status. Although this may be true, we intend to investigate some of the putative factors responsible for the low prevalence of DSH and suicidal ideation among the Pakistani group.

Religious issues
We observed that the prevalence of DSH among immigrant Pakistani adolescents residing in Denmark was as low as 3.3 per cent. It is impossible to compare this estimate to the prevalence in Pakistan. There is a paucity of information on DSH from Pakistan, due to social, legal, and religious factors, which make data collection difficult, if not impossible. That suicidal behaviour is an understudied subject in Pakistan is hardly surprising given the religious attitude to suicide and non-fatal suicidal behaviour in Islamic culture, where DSH is a sinful act and considered a criminal offence (Khan and Reza 1998; 2000). Besides the Islamic doctrine regarding suicide, in which persons taking their own life will be denied entry to heaven, considerable stigma is attached to seeking help for mental health problems.

Based on the literature, it might be fair to assume that values associated with diverse cultures can lead to differences in affect and other behaviours (e.g., alcohol use, seeking social support) and health outcomes of ethnic minority youth. Often ignored in the coping literature, religious resources and value systems tend to provide meaning to human experiences. According to Pargament (1997: 90), who defines coping as a "process that people engage in to attain significance in stressful circumstances', religious coping is more likely to occur as the seriousness of the consequences of a situation or

personal crisis increases. The present study indicated that young Pakistanis use religious coping significantly more often than ethnic Danes when they experience sadness. 76.8 per cent of the Pakistani adolescents utilize religious prayer as a coping strategy compared to 20.9 per cent of ethnic Danish adolescents. We also observed that significantly more Pakistani males and females than expected read scripture and/or meditate when they are sad or upset. In comparison, fewer Danish adolescents (of both sexes) than expected use prayer, read scripture, and/or meditate when they are sad or upset. These findings are consistent with most previous studies. Hussain and Cochrane (2003) found that coping through religious prayer was the most common strategy for dealing with depression among Asian women. Many Muslims read duas / surahs (verses from the Quran) as well as additional non-obligatory prayers (nafls), reflecting that religion may be a set of moral or ethical beliefs, or may take the form of the organized church.

Religion can provide specific cognitive beliefs that may act as a buffer against suicidal behaviour. It may be so that attitudes toward suicidal behaviour, often influenced by religious beliefs, affect the propensity towards suicidal behaviour. Although social theory has demonstrated that attitudes are not necessarily related to behaviour, Minear and Brush (1980-81) found an association between weak or non-existent religious belief and suicide acceptability. Religious persons report experiencing fewer suicidal impulses (Minear and Brush 1980-1981) and hold more negative attitudes toward suicidal behaviour (Hoelter 1979). Thus, religion may be important in preventing suicide, partly because it affects conscience, attitudes, and ideas as well as behaviour. For many ethnic groups, religion can be a tremendous asset during a time of suicidal crisis and should not be overlooked as a potential protective resource by providing relief from psychological distress, as well as suicidal thoughts and feelings, or hold strict moral prohibitions against self-destruction. As stated, in Islamic tradition views of suicide are consistently condemnatory. The Quran forbids people to kill themselves, and Islamic tradition maintains that people who commit suicide is condemned to perpetual hell, always excluded from heaven, and can never be forgiven, although there are some indications of sympathy to surviving relatives (Kamal and Loewenthal 2002; Latha et al. 1996). This supports the view that the strong Islamic condemnation of suicide is reflected in the beliefs of young Muslims who morally object to self-harming behaviour. The importance of suicide ideology has been shown in a multivariate analysis by Marcenko et al. (1999) who found that once attitudes toward suicide are controlled, suicide ideation does not vary significantly by ethnicity. On an overall level, the Pakistani adolescents utilize religious coping strategies far more often than ethnic Danes. It may be so that religion is a core protective factor against suicidal ideation and DSH in the Pakistani group. Focusing on Pakistani as well as Danish adolescents, we found no statistical significant associations between suicidal ideation and religious coping strategies, however. This might be due to the small sample size, which may likely lead to lack of power in statistical significance tests or to a Type II error, i.e. the 'no association' finding between suicidal behaviour and religious coping.

Even after a generation of residence in Denmark, most Pakistani families seem to maintain their cultural identity and old cultural and religious traditions, beliefs, and values, including expectations of academic success, authority of elders, religious guidance, and unquestioning compliance from younger family members. Socio-cultural norms have been shown to either facilitate or inhibit suicidal behaviour (Orbach 1997). Thus, knowledge of cultural norms and differences are extremely important in understanding the phenomenon of suicidal behaviour among different ethnic groups. Based on the existing data, we are unable to conclude further on this.

Social support

Asian cultures are historically known to foster a social view of the person that maintains a fundamental interrelatedness and interdependence (Chang 1996). Consequently, interpersonal relations are of central importance and attending to others and fitting in are assumed, valued and often expected. In

most Western cultures the exact opposite is valued. Rather than seeking relatedness, Westerners seek separateness and independence from others by attending to the self and by expressing their uniqueness and personal autonomy. This cultural difference may be reflected in how individuals think, feel, and behave when they experience problems, sadness or are upset. It seems that ethnic differences in coping behaviours to some extent can be attributed to cultural values or norms, such as differences in the availability of social support (e.g., Copeland and Hess 1995). Extended social networks itself may function as a powerful buffer against suicidal behaviour (Nisbet 1996).
Previous research has demonstrated that seeking social support can improve psychological well-being (Galaif et al. 2003). Adolescents who seek out social support from family or friends are less likely to experience negative consequences caused by adversity or stress or to utilize maladaptive coping strategies in dealing with their problems (Cohen and Wills 1985; McFarlane et al. 1994). Studies have shown that while few adolescents seek professional psychological help, most will seek help from a variety of other sources, such as family members, friends, and teachers (Offer et al. 1991; Boldero and Fallon 1995). Up to 90 per cent of all adolescents tell their peers rather than a mental health professional of their distress (Kalafat and Elias 1995; Kalafat 1997).

The results of recent studies suggest that culturally determined attitudes towards suicidal disclosure determine the extent to which suicidal intent is communicated to close friends (Eskin 1999; 2003). Eskin (2003) concluded that Turkish high school students were more likely than Swedish students to disclose their suicidal ideation. This is in accordance with the present study where 66.6 per cent of the Pakistani adolescents who reported having suicidal ideation had tried to talk to someone about it and their problems, mostly peers. In comparison, only 46.9 per cent of the ethnic Danish adolescents, who reported having suicidal ideation, did disclose it, mostly to friends and parents. It is not surprising that Pakistani adolescents do not disclose their ideation to their parents, given that suicidal behaviour in Islamic culture is a shameful act, which causes judgment of others and should be protected from the family. Fear of social disapproval may be an influential factor restraining Pakistanis from disclosing their distress to parents.

We also found that more Danish males and females than expected report staying in their room when they are sad or upset, compared to significantly fewer adolescent Pakistani males and females than expected, who report staying in their room in a similar situation. In general, the use of more adaptive, engaged coping strategies such as seeking social support (emotion-focused strategy) and problem solving have been associated with optimism, whereas the use of more maladaptive, disengaged escape-avoidance coping activities such as social withdrawal, have been associated with pessimism and depressive symptoms (Bjorck et al. 2001; Chang 1996; Scheier and Carver 1985, 1992) and suicidal behaviour (Orbach et al. 1990; Josepho and Plutchik 1995). The hypothesis, that avoidance coping is positively associated with suicidal behaviour was partially supported in the present study. We found that adolescents who engage in distractive avoidant coping strategies, such as staying in their room watching TV, were slightly more likely to have engaged in DSH. Among the ethnic Danes, who had harmed themselves, more than expected answered that they did not talk to someone when they are sad or upset. These results would imply that supportive interpersonal relationships are protective factors against suicidality (Cole et al. 1992). It should be noted, however, that when peers are sought for help, they might be poorly equipped to provide helpful responses to difficult questions (Deane et al. 2001). Suicidal adolescents tend to form "poor quality friendships' (Cole et al. 1992), which raises serious concerns about the benefit of seeking help from peers (Offer et al. 1991). In addition, few adolescents tend to advise consultation with a psychiatrist to a suicidal friend. In an Irish study using a classroom population of 13-14-year-old children, the respondents were asked how they might help persons who talked of killing themselves (O'Sullivan and Fitzgerald 1998). While the need for advice and friendship was universally accepted, professional counselling was suggested in only 8 of 45 replies and psychiatric help in only 7 replies (15.5 per cent). The need for close supervision was mentioned only once.

Seeking social support may also be negatively correlated with maladaptive coping activities, such as drinking alcohol. We observed that significantly fewer Pakistani females than expected utilize alcohol as an avoidant coping strategy when experiencing sadness. This abstinence from alcohol is in accordance with existing research, stating that rates of alcohol dependence are generally low in Asian women (Cochrane 1999).

Limitations
Although the CASE-questionnaire was completed anonymously, it is possible that immigrant Pakistanis compared to ethnic Danes were more reluctant to report DSH. Izzat and sharam, honour and shame, may be involved here, because they generate concern for the reputation of the family in regard to disclosing distress. A second point of concern is the somewhat small number of cases. This was a deliberate decision, however.

In many studies Asians are crudely grouped together contrasting Asian and Western cultures on an overall level. In our opinion this is an overgeneralization, given the differences in religious and social values at play. 'Asian' or 'Muslim' are broad terms for very diverse groups. As Hedayat-Diba (2000) has suggested, Muslim immigrants are quite varied culturally and ethnically, and so one should abstain from any temptation to generalize hastily on the basis of Islamic religion or geography alone.

Conclusion
DSH among various ethnic groups is a major concern in Denmark. As the Danish society becomes increasingly ethnically diverse, the need for suicide research

addressing ethnic issues increases correspondingly. We would like to stress the value of considering and assessing ethnicity in research on coping, suicidal ideation and DSH. However, because coping researchers have focused on largely Caucasian samples, with only scattered studies targeting ethnic diverse populations, very little is known about coping styles among different racial or ethnic groups and about how they and related variables, such as the use of different specific coping strategies, are associated with psychological health outcomes. Future research needs to be sensitive to ethnicity when studying coping efficacy and resiliency to DSH. Particularly the utilization of religious coping strategies and social support seeking may prove interesting in future work on ethnic groups and coping responses.

There has been little research on the association between coping and adolescent DSH that help clinicians design culture-sensitive prevention and intervention programmes for suicidal thoughts and actions. In the present study we intended to bridge this gap in the knowledge and understanding of suicidal behaviour and coping behaviour amongst immigrant Pakistani and ethnic Danish adolescents. One of the aims of the present study was to identify some of the culture-specific determinants of suicidal behaviour. The results may help provide relevant information on differences and similarities in coping strategies between ethnic groups and, thus, hopefully lead to a better understanding of the issues involved in ethnic differences in the prevalence of DSH and suicidal ideation.

Acknowledgement & References

The questionnaire was developed and the study conducted in collaboration with the 'Child and Adolescent Self-harm in Europe' (CASE) Study, an international investigation of self-harm among young people.

The authors would like to thank The Egmont Foundation for supporting this study financially.

Bjorck J.P., Cuthbertson W., Thurman J.W. and Lee Y.S. (2001) Ethnicity, coping, and distress among Korean Americans, Filipino Americans, and Caucasian Americans. Journal of Social Psychology, 141, 421-442.

Boldero J. and Fallon B. (1995) Adolescent help-seeking: What do they get help for and from whom? Journal of Adolescence, 18, 193-209.

Carlton P.A. and Deane F.P. (2000) Impact of attitudes and suicidal ideation on adolescents' intentions to seek professional psychological help. Journal of Adolescence, 23, 35-45.

Chang E.C. (1996) Cultural differences in optimism, pessimism, and coping: Predictors of subsequent adjustment in Asian American and Caucasian American college students. Journal of Counseling Psychology, 43, 113-123.

Cochrane R. (1999) 'Ethnicity, drinking patterns and alcohol problems', in Bhugra D. and Bahl V. (eds.) Ethnicity: An Agenda for Mental Health. London: Gaskell. 70-84.

Cohen S. and Wills T.A. (1985) Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.

Cole D.E., Protinsky H.O. and Cross L.H. (1992) An empirical investigation of adolescent suicidal ideation. Adolescence, 27, 813-818.

Cooper M.L., Russell M., Skinner J.B. and Frone M.R. (1992) Stress and alcohol use: Moderating effects of gender, coping, and alcohol expectancies. Journal of Abnormal Psychology, 101, 139-152.

Copeland E.P. and Hess R.S. (1995) Differences in young adolescents' coping strategies based on gender and ethnicity. Journal of Early Adolescence, 15, 203-219.

Curry J.F., Miller Y., Waugh S. and Anderson W.B. (1992) Coping responses in depressed, socially maladjusted, and suicidal adolescents. Psychological Reports, 71, 80-82.

Deane F.P., Wilson C.J. and Ciarrochi, J. (2001) Suicidal ideation and help-negation: Not just hopelessness or prior help. Journal of Clinical Psychology, 57, 901-914.

D'Zurilla T.J., Chang E.C., Nottingham E.J.I. and Faccini, L. (1998) Social problem-solving deficits and hopelessness, depression, and suicidal risk in college students and psychiatric inpatients. Journal of Clinical Psychology, 54, 1091-1107.

Edwards M.J. and Holden R.R. (2001) Coping, meaning in life, and suicidal manifestations: Examining gender differences. Journal of Clinical Psychology, 57, 1517-1534.

Eskin M. (1999) Social reactions of Swedish and Turkish adolescents to a close friend's suicidal disclosure. Social Psychiatry & Psychiatric Epidemiology, 34, 492-497.

Eskin M. (2003) A cross-cultural investigation of the communication of suicidal intent in Swedish and Turkish adolescents. Scandinavian Journal of Psychology, 44, 1-6.

Folkman S. and Lazarus R.S. (1985) If it changes it must be a process: Study of emotion and coping during three stages of a college examination. Journal of Personality & Social Psychology, 48, 150-170.

Galaif E.R., Sussman S., Chou C.-P. and Wills T.A. (2003) Longitudinal relations among depression, stress, and coping in high risk youth. Journal of Youth & Adolescence, 32, 243-258.

Garrison C.Z., Addy C.L., Jackson K.L. and Mckeown R.E. (1991) A longitudinal study of suicidal ideation in young adolescents. Journal of the American Academy of Child & Adolescent Psychiatry, 30, 597-603.

Goldacre M. and Hawton K. (1985) Repetition of self-

poisoning and subsequent death in adolescents who take overdoses. British Journal of Psychiatry, 146, 395-398.

Goldney R.D., Winefield A.H., Tiggemann M. and Winefield H.R. (1989) Suicidal ideation in a young adult population. Acta Psychiatrica Scandinavica, 79, 481-489.

Hawton K. and Fagg J. (1992) Deliberate self-poisoning and self-injury in adolescents: A study of characteristics and trends in Oxford, 1976-89. British Journal of Psychiatry, 161, 816-823.

Hawton K., Rodham K., Evans E. and Weatherall R. (2002) Deliberate self harm in adolescents: Self report survey in schools in England. BMJ: British Medical Journal, 325, 1207-1211.

Heacock D.R. (1990) Suicidal behavior in Black and Hispanic youth. Psychiatric Annals, 20, 134-142.

Hedayat-Diba Z. (2000) 'Psychotherapy with Muslims', in Richards P.S. and Bergin A.E. (eds.) Handbook of psychotherapy and religious diversity. Washington, DC, US: American Psychological Association. 289-314.

Hoelter J.W. (1979) Religiosity, fear of death and suicide acceptability. Suicide & Life-Threatening Behavior, 9, 163-172.

Hussain F.A. and Cochrane R. (2003) Living with depression: coping strategies used by South Asian women, living in the UK, suffering from depression. Mental Health, Religion & Culture, 6, 21-44.

Joiner T.E. and Rudd M.D. (1996) Disentangling the interrelations between hopelessness, loneliness, and suicidal ideation. Suicide & Life-Threatening Behavior, 26, 19-26.

Josepho S.A. and Plutchik R. (1994) Stress, coping, and suicide risk in psychiatric inpatients. Suicide & Life-Threatening Behavior, 24, 48-57.

Just Jeppesen K. (1989) Unge indvandrere: En undersoegelse af andengeneration fra Jugoslavien, Tyrkiet og Pakistan [Young immigrants: a study of second-generation from Yugoslavia, Turkey and Pakistan]. Copenhagen: Socialforskningsinstituttet.

Kalafat J. (1997) 'Prevention of youth suicide', in Weissberg R.P. and Gullotta T.P. (eds.) Healthy children 2010: Enhancing children's wellness. Issues in childrens' and families' lives. Thousand Oaks, CA: Sage. 175-213.

Kalafat J. and Elias M.J. (1995) Suicide prevention in an educational context: Broad and narrow foci.

Suicide & Life-Threatening Behavior, 25, 123-133.

Kamal Z. and Lowenthal K.M. (2002) Suicide beliefs and behaviour among young Muslims and Hindus in the UK. Mental Health, Religion & Culture, 5, 111-118.

Khan M.M. and Reza H. (1998) Gender differences in nonfatal suicidal behavior in Pakistan: Significance of sociocultural factors. Suicide & Life-Threatening Behavior, 28, 62-68.

Khan M.M. and Reza H. (2000) The pattern of suicide in Pakistan. Crisis, 21, 31-35.

Latha K.S., Bhat S.M. and D'Souza P. (1996) Suicide attempters in a general hospital unit in India: Their sociodemographic and clinical profile - Emphasis on cross-cultural aspects. Acta Psychiatrica Scandinavica, 94, 26-30.

Marcenko M.O., Fishman G. and Friedman J. (1999) Reexamining adolescent suicidal ideation: A developmental perspective applied to a diverse population. Journal of Youth & Adolescence, 28, 121-138.

Maris R.W., Berman A.L., Maltsberger J.T. and Yufit R.I. (1992) Assessment and prediction of suicide. New York: Guilford Press.

Marshall H. and Yazdani A. (1999) Locating culture in accounting for self-harm amongst Asian young women. Journal of Community & Applied Social Psychology, 9, 413-433.

Mcfarlane A.H., Bellissimo A., Norman G.R. and Lange P. (1994) Adolescent depression in a school-based community sample: Preliminary findings on contributing social factors. Journal of Youth & Adolescence, 23, 601-620.

Minear J.D. and Brush L.R. (1980) The correlations of attitudes toward suicide with death anxiety, religiosity, and personal closeness to suicide. Omega: Journal of Death & Dying, 11, 317-324.

Molock S.D., Kimbrough R., Lacy M.B. and Mcclure K.P. (1994) Suicidal behavior among African American college students: A preliminary study. Journal of Black Psychology, 20, 234-251.

Nisbet P.A. (1996) Protective factors for suicidal Black females. Suicide & Life-Threatening Behavior, 26, 325-341.

Offer D., Howard K.I., Schonert K.A. and Ostrov E. (1991) To whom do adolescents turn for help? Differences between disturbed and nondisturbed adolescents. Journal of the American Academy of Child & Adolescent Psychiatry, 30, 623-630.

Orbach I. (1997) A taxonomy of factors related to suicidal behavior. Clinical Psychology: Science & Practice, 4, 208-224.

Orbach I., Bar-Joseph H. and Dror N. (1990) Styles of problem solving in suicidal individuals. Suicide & Life-Threatening Behavior, 20, 56-64.

O'Sullivan M. and Fitzgerald M. (1998) Suicidal ideation and acts of self-harm among Dublin school children. Journal of Adolescence, 21, 427-433.

Pargament K.I. (1997) The psychology of religion and coping: Theory, research, practice., London: Guilford Press.

Parker J.D.A. and Endler N.S. (1996) 'Coping and defense: A historical overview', in Zeidner M. and Endler N.S. (eds.) Handbook of coping: Theory, research, applications. Oxford, England: John Wiley & Sons. 3-23.

Puskar K., Hoover C. and Miewald C. (1992) Suicidal and nonsuicidal coping methods of adolescents. Perspectives in Psychiatric Care, 28, 15-20.

Roberts R.E., Roberts C.R. and Chen Y.R. (1997) Ethnocultural differences in prevalence of adolescent depression. American Journal of Community Psychology, 25, 95-110.

Saunders S.M., Resnick M.D., Hoberman H.M. and Blum R.W. (1994) Formal help-seeking behavior of adolescents identifying themselves as having mental health problems. Journal of the American Academy of Child & Adolescent Psychiatry, 33, 718-728.

Scheier M.F. and Carver C.S. (1985) Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. Health Psychology, 4, 219-247.

Scheier M.F. and Carver C.S. (1992) Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. Cognitive Therapy & Research, 16, 201-228.

Swanson J.W., Linskey A.O., Quintero-Salinas R. and Pumariega A.J. (1992) A binational school survey of depressive symptoms, drug use, and suicidal ideation. Journal of the American Academy of Child & Adolescent Psychiatry, 31, 669-678.

Vega W.A., Zimmerman R.S., Warheit G.J. and Apospori E. (1993) Risk factors for early adolescent drug use in four ethnic and racial groups. American Journal of Public Health, 83, 185-189.

Wilson K.G., Stelzer J., Bergman J.N. and Kral M.J. (1995) Problem solving, stress, and coping in adolescent suicide attempts. Suicide & Life-Threatening Behavior, 25, 241-252.

Wong M.T.H., Chang P.C.M., Yu Y.L. and Chan Y.W. (1994) Psychosocial impact of Huntington's disease on Hong Kong Chinese families. Acta Psychiatrica Scandinavica, 90, 16-18.

Zollner L. (2002) Unges Livsstil [Adolescents' life style], Lemvig: Lemvig Ungdomsgaard.

www.selvmordsforskning.dk

Center for Selvmordsforskning - Søndergade 17 - 5000 Odense C - Tlf.: 66 13 88 11 - Fax 65 90 81 74 - info@cfsmail.dk