



Increase of mental distress among female medical students in a 20-year span: findings from two Norwegian faculties

EAPH 2019
21st May, Oslo

Nora Ruud (Medical Student), University of Oslo

Lise Tevik Løvseth (Dr.philos/Project manager), St Olav University
Hospital, Trondheim

Reidar Tyssen (Professor Dr.med/Principal Investigator),
University of Oslo

(tyssen@medisin.uio.no)



Background

- Decrease in levels of subjective well-being from 1993/94 to 2015 in two Norwegian medical schools (Sletta et al BMC Med Educ 2019)
- Changes in medical student population
 - Higher female representation (from 55 to 75%)
 - New generation of youths
 - Changes in the society
- Is the reduced well-being of clinical importance?



Objectives

1. To compare levels of mental distress (anxiety and depressive symptoms) in students entering two medical schools in 2015 with those who entered in 1993
2. To identify characteristics of those with high levels mental distress, including any clinical importance of such distress





Subjects I

1) The STUDMED survey (2015)

Participants: All medical students (N= 1634) in Trondheim and Bergen

Web survey

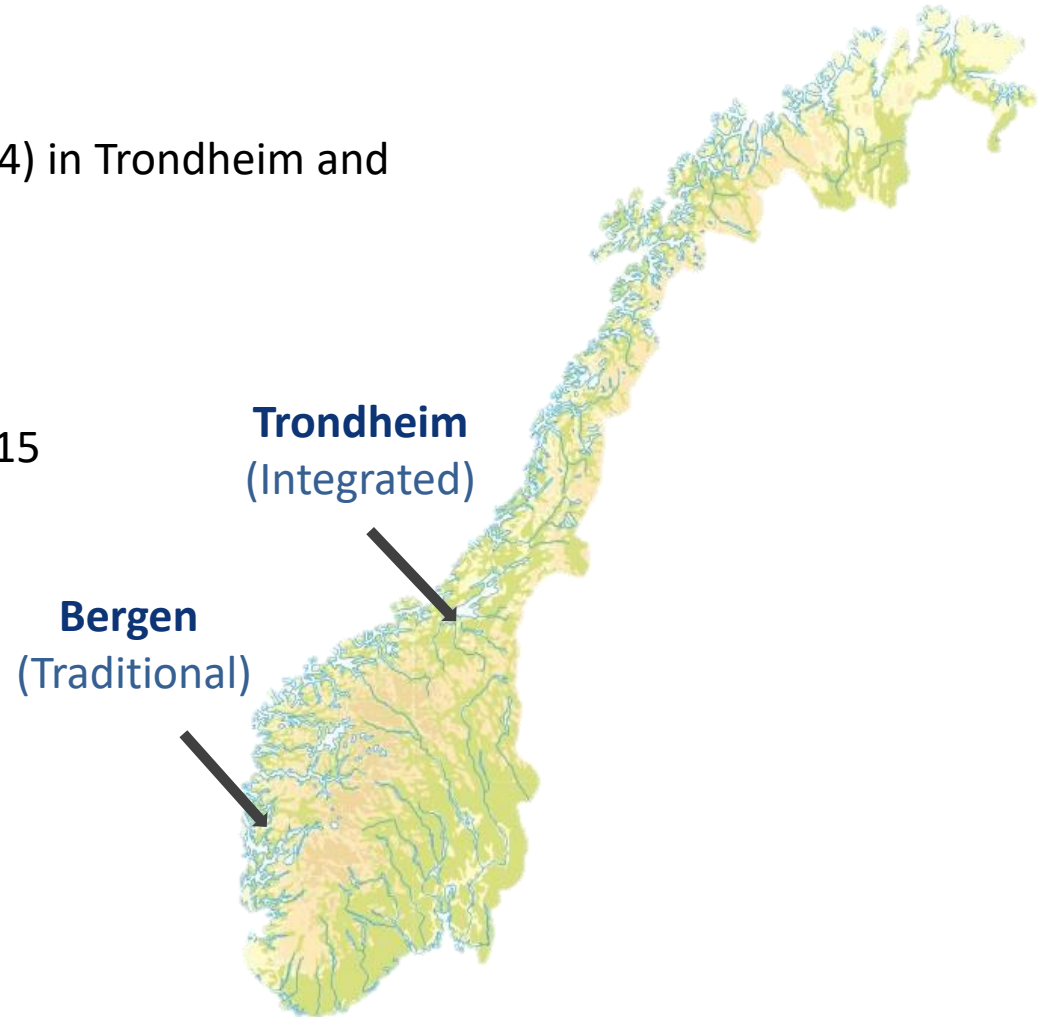
Data collection from January to March 2015

Total response rate first year :
57 % (169/296)

Trondheim: 60 % (73/122)

Bergen: 55 % (96/174)

Female students comprise 74-75%





Subjects II

2) the NORDOC study (1993-) N=421

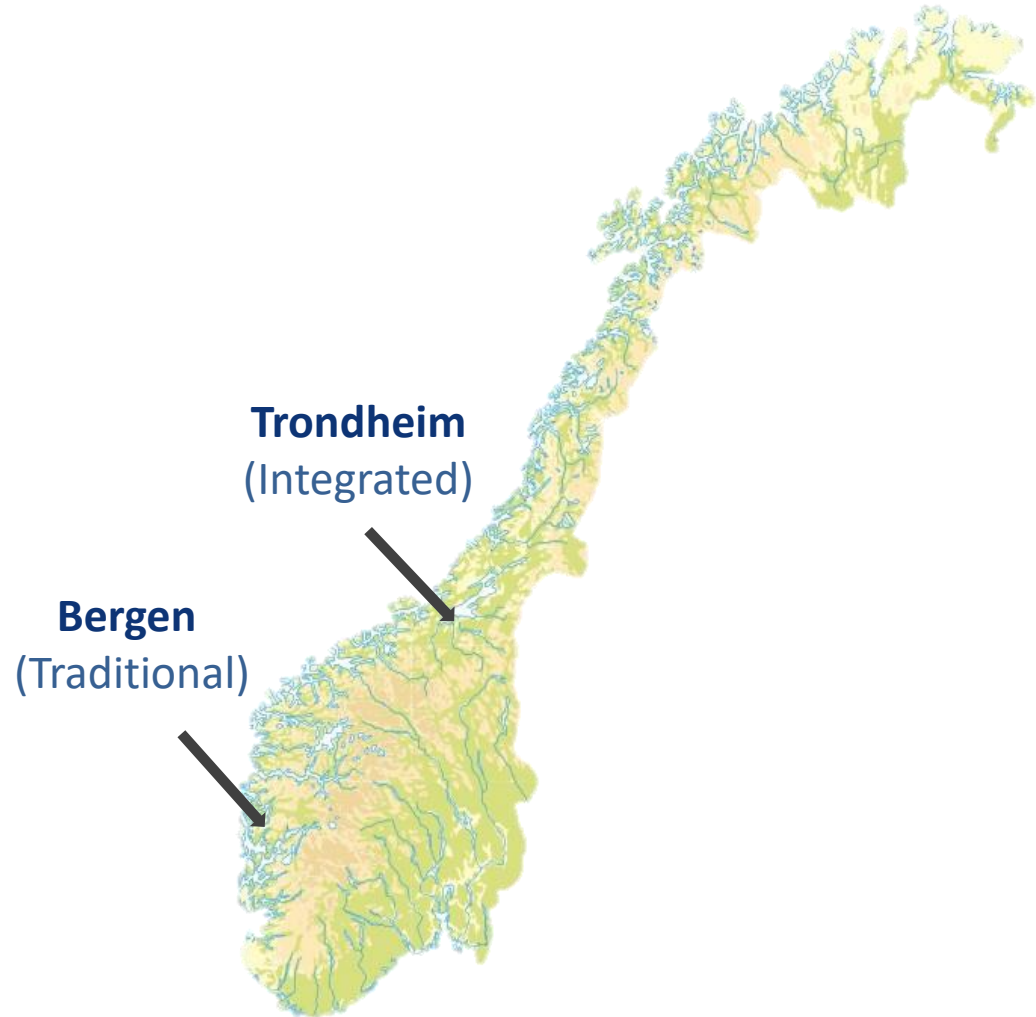
Postal survey

Data collection in 1993 (T1),
Comparison data for our study.

Total response rate at first year :
89 % (374/421)

Trondheim and Oslo: N= 174

Female students comprise 55%





Methods

Dependent variables

- Mental distress (anxiety and depressive ss)
 - SCL-5 –1 to 5, mean levels and caseness (at median or above)
- Mental health problems in need of treatment
 - About treatment needs and professional help seeking

Independent variables

- Age
- Faculty (University)
- Educational levels of mother and father
- Structural social support – living alone or not
- Perceived social support – about trust and confidence in others (parents, friends at school, other friends, partner, family members, school administration)
- Hazardous drinking

Results

Levels of mental distress at entrance to medical school

Mean levels of SCL-5 in 1993 vs in 2015:

All students : 1.6 (0.6) vs 2.1 (1.0) $t=4.81, p<0.001$

Measure	NORDOC 1993		STUDMED 2015	
	Women	Men	Women	Men
SCL-5 mean	1.64	1.62	2.17***	1.73 (n.s.)
SCL-5 case	32%	35%	55%***	37%

*** : $p<0.001$, Cohens $d=0.63$ (for mean difference)

Mental health problems in need of treatment among female students, N (%)

	NORDOC 1993	STUDMED 2015
Not relevant/no problems	74 (78.7)	91 (72.2)
Yes, I have treatment needs, but not sought help	14 (14.9)	9 (7.1)
Yes, I have consulted GP	1 (1.1)	4 (3.2)
Yes, I have consulted on campus for help	-	1 (0.8)
Yes, I have consulted psychologist/psychiatrist	5 (5.3)	17 (13.5)
Yes, I have been admitted to mental hospital	0	4 (3.2)
	94 (100)	126 (100)

Mental distress, treatment needs and professional help-seeking in female students

- 69% of the SCL-5 cases reported mental health problems in need of treatment
- 30% (n=6/20) of those with treatment needs had sought professional help in the 1993 sample, whereas 74% (n=26/35) in need had sought such help in the 2015 sample.

Adjusted factors associated with SCL-5 in female students

Variable	Beta	Confidence interval	P-value
Age	-0.20	-0.14 to -0.01	0.021
University (Trondheim)	0.18	0.05 to 0.69	0.024
Social support – other friends	-0.26	-0.47 to -0.05	0.017
Hazardous drinking	-0.15	-0.65 to 0.03	0.071
Living alone or not	n.s.		
Parents educational level	n.s.		
Social support – from parents or medical school friends	n.s.		

Conclusions

- There has been an increase in levels of mental distress among female students entering medical school over the past 22 years
- This increase in distress seems to be of clinical importance
- Among students of today, more of those with treatment needs have sought professional help
- Younger age, faculty and social support from friends seem to be of importance with respect to mental distress