



## The (in)stability of adolescent fears

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**Summary**—This study examined change in different types of fear in a longitudinal study of a birth cohort from age 13–15 yr. When viewed cross-sectionally there were few differences in the frequency and content of fears reported at these ages with the exception of an increase in social fears at age 15. When viewed longitudinally, however, few adolescents who reported fears at age 13 continued to report fears 2 yr later. Implications for developmental theories of fear and phobia are discussed. Copyright © 1997 Elsevier Science Ltd

### INTRODUCTION

The majority of research on fear has focused on adults and considerably less is known about the experience of fear in children and adolescents. Most existing data that pertains to younger *Ss* derives from parent or child surveys that include a large number of potentially fear-provoking stimuli (e.g. The Revised Fear Survey Schedule for Children (FSSC-R), Ollendick, 1983; Ollendick, Matson & Helsel, 1985). Results using this instrument have indicated that fears are surprisingly common among children and adolescents. Typically, girls and younger children report more fears than do boys or older children. For many years it was assumed that these fears were expected, transitory and not particularly debilitating (Granziano, 1975). However, recent research has indicated that the majority of young people experience significant distress and interference in their daily activities because of their fears (McCathie & Spence, 1991; Ollendick & King, 1994).

Interestingly, the vast majority of the most commonly reported fears from the FSSC-R concern potential physical danger, whereas only about 20% were social evaluative in nature (e.g. Ollendick & King, 1994). Further, a normative study of children and adolescents aged 7–18 yr found 8 of the 10 most common fears were shared by children of all ages and that these fears were similar to those reported in a comparable study almost 20 years earlier (Ollendick *et al.*, 1985; Scherer & Nakamura, 1968). On the basis of these findings it was suggested that child and adolescent fears may be more stable over time than previously thought (cf. Granziano, 1975).

More research into the 'seriousness' and stability of adolescent fears using prospective designs has been called for (e.g. Ollendick, King & Frary, 1989). Specifically, information about the prevalence, level of interference and duration of adolescent fears is required before the relationship between fear in adolescence and adjustment in adulthood can be ascertained. The aims of the present study were to investigate the prevalence and continuity of clinically relevant fears reported by male and female adolescents from ages 13 to 15. Specifically, fears will be examined individually and in groups. Fears will be grouped according to their similarity with the symptoms included in specific DSM-III-R adult phobic disorders.

### METHOD

#### Sample

The sample consisted of adolescents enrolled in the Dunedin Multidisciplinary Health and Development Study, a longitudinal investigation of the health, development and behaviour of a cohort of children born in Dunedin, New Zealand between 1 April 1972 and 31 March 1973. Of the 1139 children who were eligible for inclusion in the sample, 1037 were assessed at 3 yr of age and every 2 yr thereafter to age 15 on a variety of medical, development and behavioural measures. The sample characteristics have been described in detail elsewhere (Silva & Stanton, 1997).

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By age 15, eight sample members had died. Of the remaining 1029 adolescents, 969 were assessed at the Dunedin Unit, or elsewhere in New Zealand, or overseas (primarily Australia). The Dunedin sample is slightly socioeconomically advantaged compared to the rest of New Zealand's population and is under-representative of individuals of Maori or Pacific Island descent (about 3% in the sample compared with about 12% for New Zealand). The sample does, however, contain all groups from the socioeconomic spectrum and is comparable with other English speaking Western countries.

### Measures

*Fear.* The definition of fear was based on endorsement of one or more listed items as a source of fear that "caused problems" for the adolescent, or "stopped them from doing things they want to do" or "stopped them from doing things with others". The items listed were bridges, tunnels, being in an aeroplane, lifts, being alone, buses, being in a crowd, speaking to strangers, meeting new people, being in water, animals that can't really hurt you, heights, the dark and thunderstorms. These items were derived from those listed in the Diagnostic Interview Schedule for Children (DISC-C: Costello, Edelbrock, Kalas, Kessler & Klaric, 1982)

### Procedure

The sample consisted of the 722 adolescents who were given the DISC-C (Costello *et al.*, 1982) at age 13 and 15 yr. The adolescents were assessed as closely as possible to their 13th and 15th birthdays, usually within 2 months. The majority of interviews were carried out at the Dunedin Unit. Before each interview, the adolescents were assured of confidentiality.

## RESULTS

Of the 722 adolescents (348 females, 374 males) assessed at age 13, 96 (13.3%) were identified as having one or more fears which caused them significant distress, discomfort or some impairment of functioning. Some adolescents reported more than one fear (the 96 adolescents reported a total of 169 fears). As can be seen in Table 1 the most common fear was "speaking in front of your class" ( $n = 45$ , 6.2%). The next most commonly reported fear was "heights", reported by 19 (2.6%) of the 13 yr olds.

At age 15, 139 adolescents were identified as having one or more fears (19.3%). The 139 adolescents reported 229 fears of which "speaking in front of your class" was again the most common (10.2%). The next most common fear was "heights", reported by 27 (3.7%) of the 15 yr olds. Overall, there was nearly a 30% increase in the prevalence of reported fears from ages 13 to 15 yr.

To examine 'types' of fear more closely, adolescents were categorised into the following groups: those showing social fears (speaking in front of the class, unknown people, speaking to strangers, meeting new people); agoraphobic fears (bridges, tunnels, aeroplanes, lifts, being alone, buses, crowds); simple fears (water, animals, heights, the dark, thunderstorms); or multiple fears (fears from more than one of these categories); and a 'no-fear' group. The frequency of these types of fears at age 13 are presented in Table 2. Social fears were reported by 5.0% of the sample at age 13, closely followed by multiple fears (4.0%) and simple fears (3.0%). Agoraphobic fears were reported least when the sample were aged 13 (1.2%).

At age 15, the proportion of adolescents reporting fears increased, most markedly for the category of 'social fear'.

### Sex differences in fears

At age 13, 14.4% of boys and 12.1% of girls had one or more fears; a male:female ratio of 1.2:1. This sex difference was not significant. By age 15, 15.0% of boys and 23.9% of girls had one or more fears; a male:female ratio of 0.6:1 (Table 2). At age 15 significantly more girls than boys reported fears ( $\chi^2 = 9.14$ ,  $P < 0.01$ ).

### Continuity of fears from ages 13 to 15

The extent of change in self-reported fears from age 13 to 15 yr is presented in Table 3. Of the total number of adolescents sampled, 522 reported having no fears at both ages. Sixty-one (8.4%) sample members reported fears at age 13 but not at age 15. Conversely, 104 (14.4%) adolescents who had not reported any fears at age 13 did so at age 15. Only 35 sample members (4.8%) reported significant fears at both ages. That is, although the overall prevalence of fears increased from age 13 to 15, nearly two-thirds of those with fears at age 13 did not report fears at age 15.

Chi-squared analysis revealed an overall significant association between gender and presence or absence of fear ( $\chi^2 = 15.39$ , 3 *df*,  $P < 0.01$ ). A *post hoc* comparison of sex differences among only those reporting fear at age 13 and/or 15 was also significant ( $\chi^2 = 14.52$ , 2 *df*,  $P < 0.001$ ). As shown by the male:female ratios in Table 3, the majority of adolescents who reported fears at age 15 yr only or who reported significant fears at both 13 and 15 yr were female ( $\chi^2 = 13.84$ , 1 *df*,  $P < 0.01$ ).

Of the 35 adolescents who reported fears at both ages, only 12 (or 1.7% of the total sample) remained in their original category: social, simple, agoraphobic or multiple fears. Twenty-four had either a history of multiple fears ( $n = 17$ ) or

Table 1. Frequency\* of fears reported by males and females at age 13 and age 15 in a total sample of 348 females and 374 males

Categories of fear	Age 13		Age 15	
	Male	Female	Male	Female
Bridges	1	0	0	1
Tunnels	4	0	1	2
Aeroplanes	3	2	2	4
Lifts	2	3	2	9
Being alone	11	5	0	10
Buses	0	0	0	1
Crowds	2	2		2
Speaking in class	28	17	35	39
Unknown people	6	2	3	9
Speaking to strangers	7	6	8	11
Meeting new people	3	5	5	11
Water	5	3	6	2
Animals	4	6	5	10
Heights	9	10	11	16
Dark	6	7	1	8
Thunderstorms	2	3	0	1
Other	4	1	4	8
Total (males and females)	97	72	85	144
Total	169		229	

\*Some sample members reported more than one fear.

social fears ( $n = 10$ ) at age 13. Of the 15 with multiple fears at age 15, 4 had a history of social fears and 7 had a history of multiple fears. Overall, in the group reporting fears at ages 13 and 15, there was considerable variation in the type of fear reported over time.

## DISCUSSION

At age 13 yr "speaking in front of the class" was the most frequently reported fear. Three years later, at age 15, just over half of those reporting fears indicated that speaking in front of their class was a significant fear. The next most common fear was of heights, closely followed by "speaking to strangers" and "meeting new people". Further, it was found that at age 13, social, simple and multiple fears were reported by between 3% and 5% of the sample. However, at age 15, social fears were reported by over 8% of our sample, with simple and multiple fears each being reported by under 5%. Agoraphobic fears were reported least at both ages (between 1% and 2% at ages 13 and 15). Therefore, the percentage of adolescents who reported multiple, simple, or agoraphobic fears at age 13 or at 15 remained approximately the same over the 2 yr. Social fears, however, appeared to be a more common problem for 15 yr olds.

Ollendick *et al.* (1985) reported no chronological age differences in their cross-sectional study of 7-18 yr olds, inferring a similar level and structure of fears with no clear support for developmental differences. However, our examination of change over a 2-yr period indicated that two-thirds of the *Ss* who reported fears at 13 did not report significant fears 2 yr on, suggesting that the majority of these fears were not persistent in this age group. On the other hand, 104 adolescents or 14% of the sample had developed new fears between age 13 and 15 yr. Thus, only 5% of the sample, most of whom were female, reported maintenance of fears at age 13 through to age 15. Persistence of reported fears appeared strongest in those who reported multiple fears at age 13. In contrast to previous findings, the most common form of fear was social evaluative in nature, particularly at age 15 (cf. Ollendick & King, 1994). This is consistent with previous reports which suggest that the onset of social phobic symptoms occurs between 15 and 17 yr (Schneier, Johnson, Hornig, Liebowitz & Weissman, 1992; Solyom, Ledwidge & Solyom, 1986). It remains to be determined whether the social fears reported in this sample indicate the onset of adult phobic disorder or alternately, simply reflect 'rational' fears commensurate with adolescent social development (e.g. dating).

Table 2. Sex differences and types of fear in adolescence ( $n = 722$ )

	Age 13			Age 15		
	Male %	Female %	Total %	Male %	Female %	Total %
Multiple fears	1.9	2.1	4.0	1.4	3.4	4.8
Social fears	3.1	1.9	5.0	4.3	4.0	8.3
Simple fears	1.5	1.5	3.0	1.7	2.9	4.6
Agoraphobic	1.0	0.2	1.2	0.4	1.1	1.5
No fears	44.3	42.4	86.7	44.0	36.7	80.7

Table 3. Continuity of fears from age 13 to age 15 yr

	Male (n = 374)		Female (n = 348)		M:F ratio
No fears at 13 and 15	276	(74.0%)	246	(71.0%)	1.1:1
Fears at 13 only	42	(11.0%)	19	(5.0%)	2.2:1
Fears at 15 only	44	(12.0%)	60	(17.0%)	0.7:1
Fears at 13 and 15	12	(3.0%)	23	(7.0%)	0.4:1

Consistent with previous findings (see Marks, 1987 for a review) at age 15 females reported significantly more fears than males, with relatively large differences found for all types of fear. No significant differences were found between males and females in report of fear at age 13. Why does the reporting of fear remain relatively stable for males from 13 to 15 but almost double in females during the same period? One possible explanation may be found in the timing of menarche in adolescent girls. A previous study has shown that early maturation can lead to an increase in internalising problems as measured by the Revised Behaviour Problem Checklist (Quay & Petersen, 1983) in girls aged 13–15 yr (Caspi & Moffitt, 1991). The possibility that the onset of menarche is related to the development of clinically significant fear during adolescence is currently being investigated in this cohort.

Despite similar prevalence rates for most fears at both ages, those reporting fears at 15 were largely not those who reported fears at age 13. This is despite precautions to ensure that our sample was made up of individuals who experienced genuine fears, fears that impede normal functioning in a given situation and fears that induce feelings of dread. While significant, these fears were relatively non-persistent. The transient nature of fears in these adolescents may be due to changes associated with development or maturation occurring between age 13 and 15 (cf. Alsaker, 1995). The exact nature of these developmental changes and their association with specific fears during this 2-yr period remains to be determined.

### CONCLUSION

Previous cross-sectional studies have found relative stability in the number and content of fears reported during adolescence (e.g. Ollendick *et al.*, 1985). Although a similar conclusion could be made from the present findings if viewed cross-sectionally, when viewed longitudinally discontinuity is the rule. Further, individuals do not continue to report fears of a particular type but instead tend to develop new fears. This may indicate a general tendency to fearfulness (i.e. high trait anxiety) in adolescence, the expression of which is, at least in part, determined by the developmental tasks at hand.

It remains possible that clinically significant fears identified in adolescence constitute a non-specific vulnerability for adult anxiety disorder (cf. Andrews, 1996). Importantly, apparent similarities in prevalence of adolescent fears gleaned from cross-sectional sampling (i.e. inferred stability) conceal great variability in onset and remission of fears within individuals. Developmental psychopathologists should be aware of this 'instability' as they attempt to understand the associations (or lack of) between adolescent fears and anxiety disorders in adulthood.

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