

General Health, Physical Ailments and Medication

General Health, Physical Ailments and Medication Use

A. Introduction

B. General health

C. Health problems

1. Headache
2. Stomachache
3. Backache
4. Difficulty getting to sleep
5. Being in a bad mood (irritable)
6. Nervousness and dizziness

D. Use of medicine

1. Headache medication
2. Stomachache medication
3. Medicine for difficulty getting to sleep
4. Medicine for nervousness
5. Cough/cold medication

E. Summary

A. Introduction

The period of adolescence is characterized by rapid physical growth, significant psychological development and changes in personal relationships. It is not surprising that the physical ailments of young people often originate from the stress and anxiety they experience in other areas of their lives. Stress-related symptoms caused by muscular tension frequently take the form of recurrent headaches, abdominal pain and dizziness.

Although there has been a limited amount of research on the relationship between sleep disturbance and depression and anxiety in young people, they are associated, though to a lesser extent than is the case among adults. There are also strong links between sleep disturbances and the quality of psychosocial relationships. Insomnia has been found to be related to fear of school and worry about other school-related matters. In other studies, headaches among young people have been associated with mental stress and a generally low perception of health. Recurrent abdominal pain (RAP) has also been widely recognized as a psychosomatic response to stress (Montgomery, 1994; Kaiser, 1992; Wright & Wright, 1992; Sharrer & Ryan-Wenger, 1991).

Although it is difficult to determine to what extent the physical ailments described here are psychosomatic, they do represent to some extent the outcomes of certain stresses that young people experience. In Chapter 9, the relationship between general health status and other aspects of students' lives (parent and peer relationships, alcohol and drug use, physical exercise and school experience) is considered.

In this chapter, how young people view themselves both in terms of their general health and the specific types of physical ailments they experience is discussed. The extent to which they use medication to treat the symptoms of these ailments is also examined. It is important to keep in mind that the vocabulary of young people and how they interpret various health-related terms strongly influences their responses to the relevant questionnaire items.

B. General health

Respondents gave an indication of their perception of their general health by describing themselves as very healthy, quite healthy or not very healthy. Responses to the question “How often do you feel tired when you go to school in the morning?” added another dimension to this summary measure of health.

The findings presented in Figure 5.1 make a good case for the statement, “a sound mind resides in a sound body”. An abundance of positive factors are associated with feeling healthy, including feeling happy and confident, being well-integrated socially and not being irritable. Most young people who feel healthy are not depressed, do not feel helpless and are satisfied with their appearance. With the exception of 11- and 15-year-old boys, healthy students tend not to have headaches. Eleven year olds have a positive attitude toward school, achieve well academically and believe, along with 13 year olds, that their family is well off. Thirteen-year-old girls and 15 year olds do not experience dizziness. Regular exercise is associated with feeling healthy for 15 year olds, especially the boys.

Figure 5.1 Factors associated with feeling healthy

<i>Students who feel healthy are more likely to</i>	<i>11 year olds</i>		<i>13 year olds</i>		<i>15 year olds</i>	
	M	F	M	F	M	F
Feel happy	●	●	●	●	●	●
Feel confident	●	●	●	●	●	○
Be well integrated socially	●	●	●	●	○	○
Not be irritable	○	○	○	○	○	○
Be satisfied with their looks	●	●	●	○	●	—
Not feel depressed	—	○	○	○	○	●
Not have headaches	—	○	○	○	—	●
Not feel helpless	—	—	○	○	○	○
Believe family is well off	○	○	○	○	—	—
Have a positive attitude toward school	○	○	—	○	—	○
Exercise regularly	—	—	○	—	●	○
Achieve well at school	○	○	○	—	—	—
Not feel dizzy	—	—	—	○	○	○
Not have stomachaches	—	—	—	○	—	○

Correlation coefficient: ○ .15 to .19 ● .20 to .29 ● .30 to .39

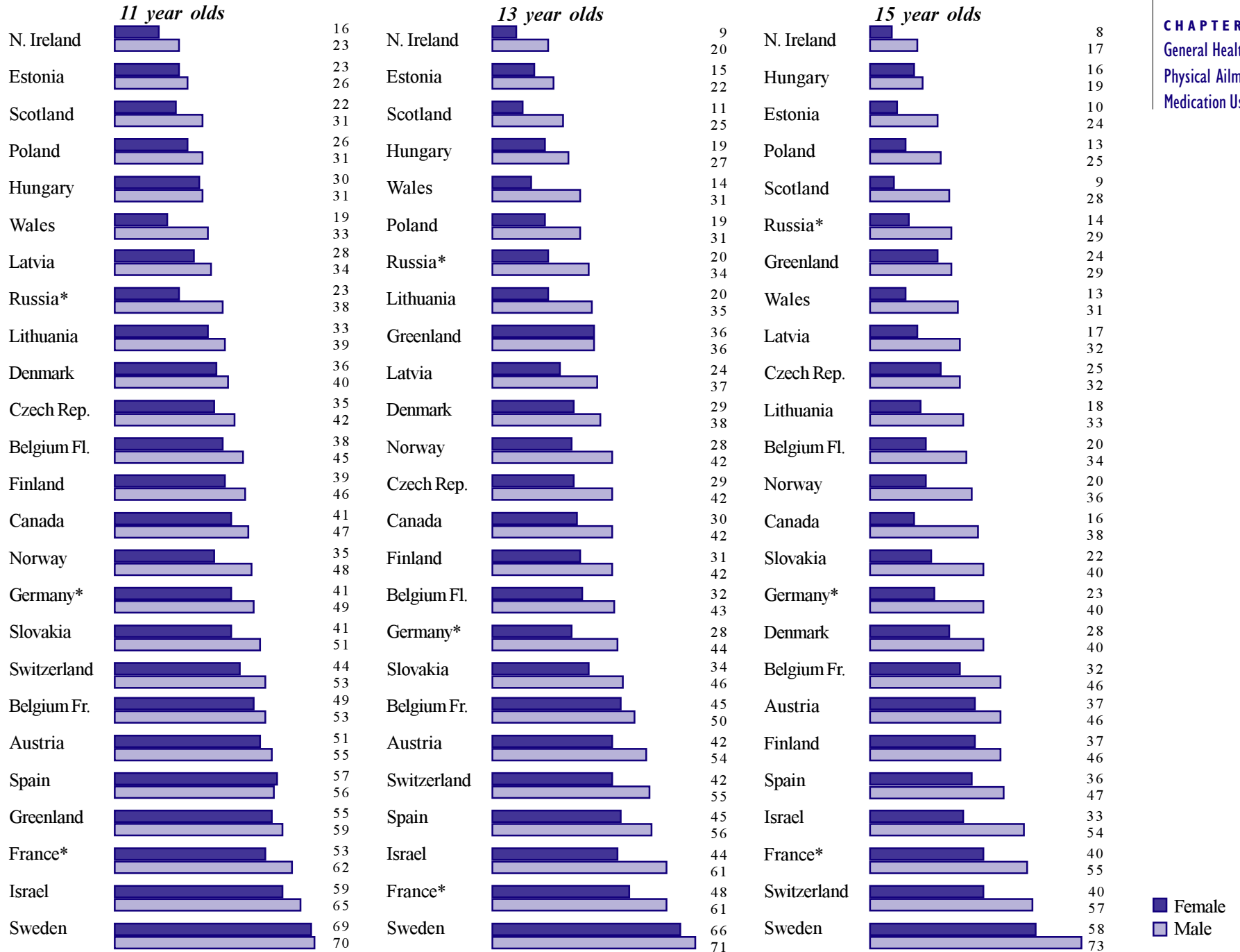
Although few students considered themselves not very healthy, the proportions of students who described themselves as very healthy varied widely from country to country (Figure 5.2). Swedish students, especially boys, were highly positive about their health while those in Northern Ireland were the least positive. Students from many eastern European countries – Estonia, Hungary, Latvia, Lithuania, Poland and Russia – were less likely than students from most other countries to feel very healthy. Conversely, more of the students in such disparate locations as Austria, France, Israel and Spain tended to feel very healthy.

Overall, boys were more likely than girls to indicate that they were very healthy, but this difference was more pronounced among the two older groups of respondents. Eleven-year-old boys and girls in Spain and Sweden, for example, were equally likely to feel healthy; however, substantially more of the 15-year-old boys than girls felt very healthy. In Canada, six percent more of the 11-year-old boys than girls said they were very healthy, but 22 percent more of the 15-year-old boys expressed this view.

Age as well as gender appeared to influence how healthy the students felt. In the majority of countries, the youngest group of students surveyed were more likely than both groups of older students to say they felt very healthy. It should be noted that by age 15, only in Sweden did more than 50 percent of girls feel very healthy and in only four countries – France, Israel, Sweden and Switzerland – did more than 50 percent of boys feel very healthy. This finding is supported by other health research (Connelly et al., 1993).

It is to be expected that students will occasionally feel tired when they go to school in the morning. However, chronic tiredness may be an indication of physical or emotional distress. Students who are in a constant state of fatigue may not perform well in school, not relate well to others or not feel like being part of extracurricular activities. Being physically tired in the morning may result from physical causes – hunger, a poor night’s sleep, lack of exercise – or from mental distress, anxiety or depression. Later in this chapter, the proportions of students who frequently feel tired in the morning are compared with those who have difficulty getting to sleep.

Figure 5.2 Students who felt very healthy (%)



■ Female
■ Male

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

Figure 5.3 lists the main factors that are correlated with feeling tired in the morning. Significantly there is a relationship with liking school which may suggest that some young people feel tired in the morning because, for them, attending school is stressful. As one might expect feeling tired in the morning is directly related to having difficulty sleeping and the mental health problems of depression and irritability. It is also associated with physical health problems such as headaches, dizziness, stomachaches and backaches. Older youth who feel tired in the morning are more likely to have been drunk. For 11 year olds, there is a relationship between feeling tired in the morning and feeling unhappy and feeling like an outsider.

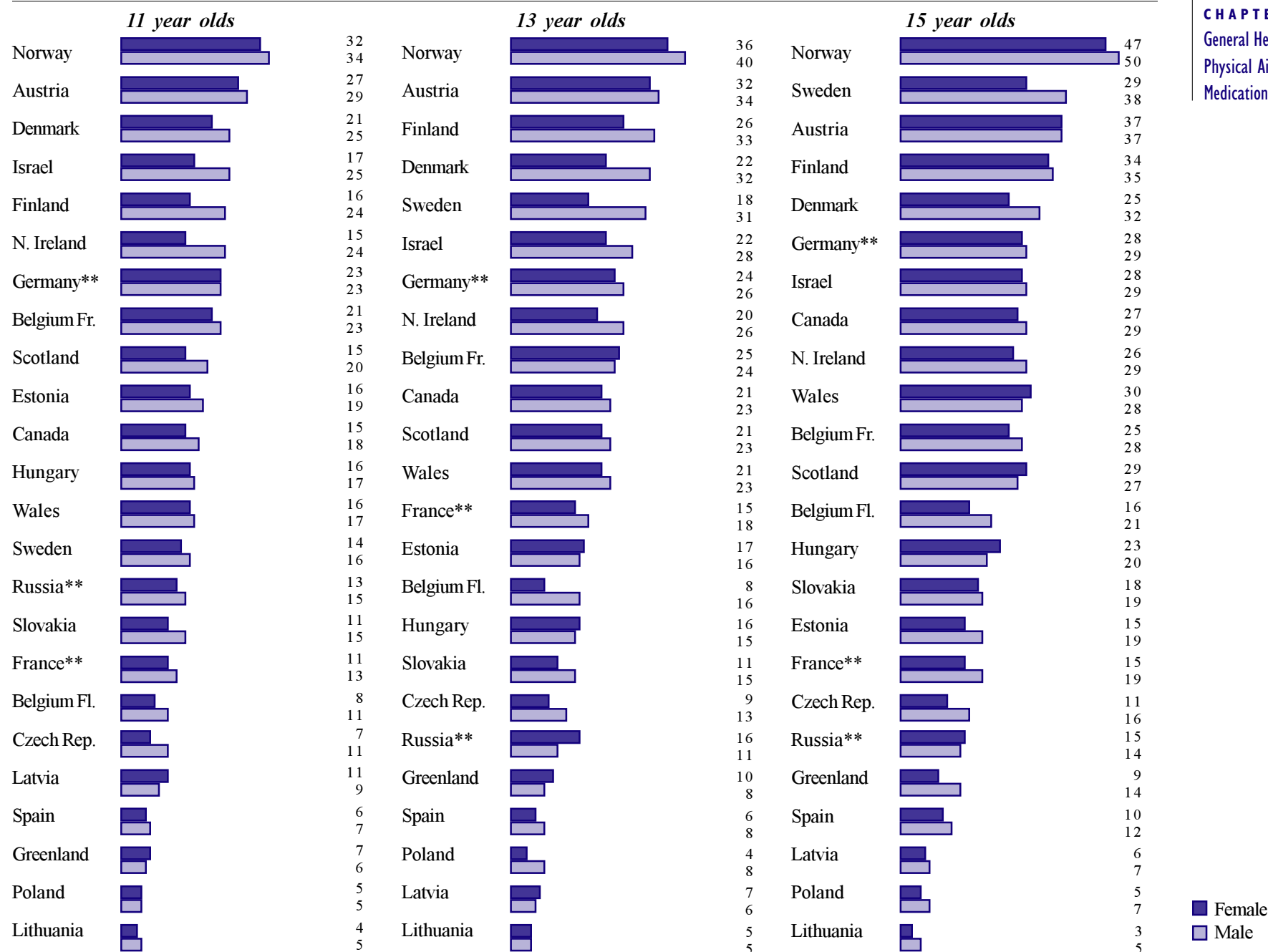
Austrian, Israeli and Scandinavian (especially 15-year-old Norwegians) students were more likely than other students to frequently feel tired in the mornings on school days (see Figure 5.4). Students in Greenland, Latvia, Lithuania, Poland and Spain were the least likely to feel tired four or more times a week. The range of responses from lowest to highest was substantial, between 4 and 34 percent for 11 year olds and between 3 and 50 percent for 15 year olds.

Generally more boys than girls felt tired at school frequently, but the differences in their responses were not large. Older students were more likely to report feeling tired when they went to school.

Figure 5.3 Factors associated with feeling tired in the morning

<i>Students who are often tired in the morning are more likely to</i>	<i>11 year olds</i>		<i>13 year olds</i>		<i>15 year olds</i>	
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
Feel depressed	●	●	●	●	●	●
Be irritable	●	●	●	●	●	●
Have difficulty getting to sleep	●	●	●	●	●	●
Not like school	●	●	●	○	●	●
Have headaches	○	○	○	○	○	○
Have stomachaches	○	○	○	○	○	○
Feel dizzy	○	○	○	○	○	○
Have backaches	○	—	○	○	○	○
Feel stressed at school	○	○	○	—	○	○
Feel nervous	●	○	○	○	—	—
Have poor communication with their parents	—	○	—	○	○	○
Have been drunk	—	—	○	—	●	●
Be unhappy	○	○	—	—	—	—
Feel like an outsider	○	○	—	—	—	—

Correlation coefficient: ○ .15 to .19 ● .20 to .29

Figure 5.4 Students who felt tired four or more times a week in the morning when they go to school* (%)

* Switzerland did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

C. Health problems

Health problems, such as headaches, stomachaches, backaches, dizziness or insomnia, among adolescents can be of organic origin or induced by stress. The frequency with which students have various aches and pains and other conditions, such as being in a bad mood and/or feeling nervous or dizzy, are useful general indicators of students' physical and emotional health.

Students were asked how often they had experienced these conditions during the previous six months: most days; more than once a week; about once every week; about once every month; and seldom or never. The proportion of males and females in each age group who reported that they frequently experience these health problems is presented and, in a later section, the proportion of respondents who indicated they had taken medication for these problems within the last month.

I. Headache

Headaches are a common complaint of young people in many parts of the world (Tynjälä et al., 1993; Kristjansdottir & Wahlberg, 1993). Research into the occurrence of childhood and adolescent headaches tends to focus on migraine headaches and there is some controversy over the incidence of tension headaches among young people. Eye strain, changes in weather, allergies, depression and a low level of physical activity have been associated with the onset of headaches in young people. Frequent headaches can affect many aspects of a young person's life and he or she may respond by not completing school work or avoiding challenging activities (Montgomery, 1994; Kaiser, 1992; Labbé, 1988).

Although survey data do not indicate a direct link to poor school performance, they show that the young people who complain of headaches are also more likely to have other physical problems such as stomachaches, backaches, nervousness and dizziness (see Figure 5.5). These symptoms are likely to have a negative influence on achievement and motivation. Such students are also more likely to be depressed and irritable. It is not surprising that they are less

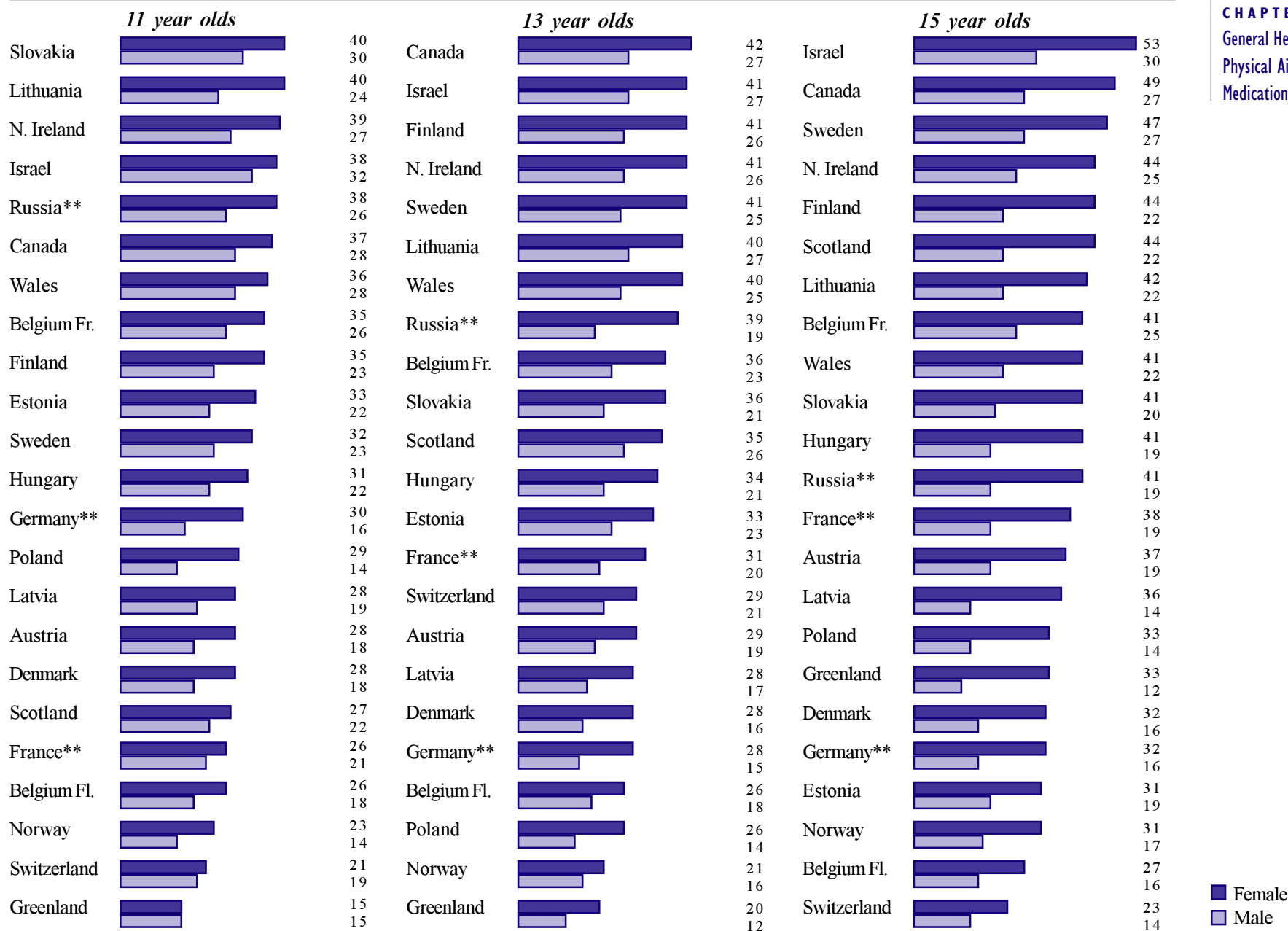
likely to feel healthy and are often tired in the morning. Girls who suffer from headaches also appear to be unhappy. The relationship with loneliness is worrisome and ambiguous: it may indicate either that the loneliness is contributing to health problems and/or the health problems are preventing some young people from fully integrating with their peers.

Frequent headaches were reported by a high proportion of students in several countries (Figure 5.6). In more than one-half of the countries between 30 and 40 percent of 11-year-old girls and between 20 and 30 percent of 11-year-old boys said they had headaches once a week or more in the previous six months. In all countries, except Estonia, there was an increase between age 11 and 15 in the proportion of girls who experienced headaches. For boys the figures were either lower by age 15 or remained relatively stable. Students in Canada, Finland, Israel, Northern Ireland and Sweden were more likely than those in other countries to have

Figure 5.5 Factors associated with having headaches

<i>Students who often have headaches are more likely to</i>	<i>11 year olds</i>		<i>13 year olds</i>		<i>15 year olds</i>	
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
Have stomachaches	●	●	●	●	●	●
Feel dizzy	●	●	●	●	●	●
Be depressed	●	●	●	●	●	●
Have backaches	●	●	●	●	●	●
Be irritable	●	●	●	●	●	●
Feel nervous	●	●	●	●	●	●
Have difficulty getting to sleep	●	●	●	●	●	●
Be tired in the morning	○	○	○	○	○	○
Not feel healthy	—	○	○	○	○	●
Feel lonely	○	○	○	○	—	○
Not feel happy	—	○	—	○	—	○

Correlation coefficient: ○ .15 to .19 ● .20 to .29 ● .30 to .39

Figure 5.6 Students who had a headache once a week or more during the previous six months* (%)

■ Female
■ Male

* Czech Republic and Spain did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

headaches frequently. In many countries, girls were twice as likely as boys to report frequent headaches by age 15. The range of responses was also greater for girls than for boys.

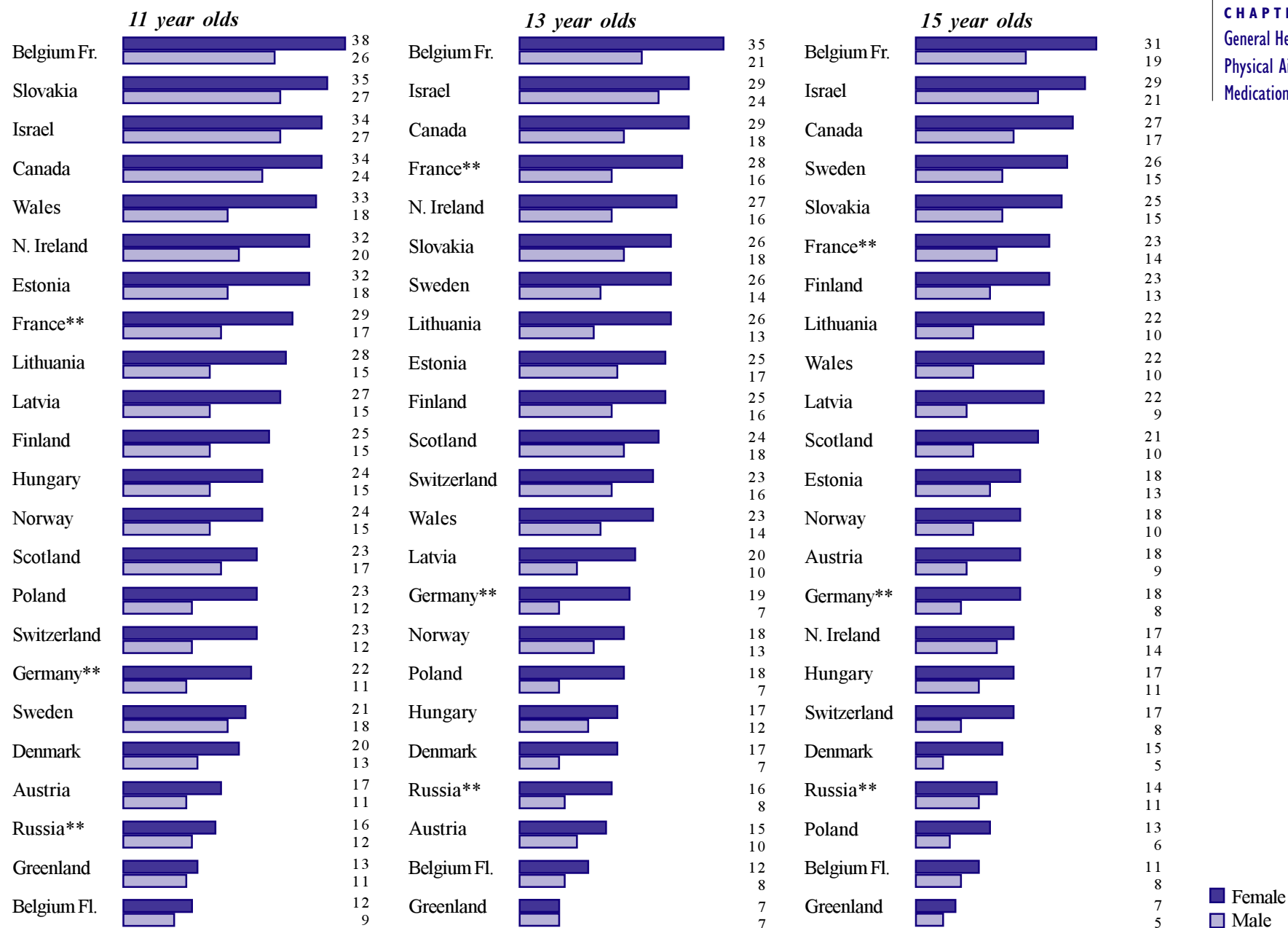
2. Stomachache

Recurring abdominal pain among young people has frequently been found to be a psychosomatic response to stress (Sharrer & Ryan-Wenger, 1991).

Lower percentages of students reported frequent stomachaches than was the case for headaches (Figure 5.7). For girls, proportions met or exceeded 25 percent in 11 countries for 11 year olds, in 10 countries for 13 year olds and in five countries for 15 year olds. It might be that for some adolescent girls stomachache was equated with menstrual cramps. The decrease in the proportion of older girls experiencing stomachaches may be because their menstrual cycle is more established.

For the most part, few boys complained of stomachaches. Only for 11-year-old boys in three countries did the proportion exceed 25 percent. There was no clear regional pattern to the countries where stomachaches were the most or least prevalent. Belgian (Fr.), Canadian, Israeli and Slovakian students were among the most likely to have stomachaches at all age levels. As noted previously, students in Israel and Canada were also among those most likely to have headaches. Stomachaches were least frequent in Belgium (Fl.), Denmark, Greenland and Russia. Three of these countries – Belgium (Fl.), Denmark and Greenland – also ranked low on the frequent headache item. Interestingly, Belgian students from the French-speaking and Flemish-speaking communities were at the extreme ends from each other on this measure.

In every country except Greenland and in each age group, girls were more likely than boys to report frequent stomachaches. The difference between girls and boys in their responses varied widely by country. The greatest difference between males and females was in Wales for 11 year olds (15%). The proportions of students with stomachaches tended to decline or remain relatively stable with age for both girls and boys in almost every country.

Figure 5.7 Students who had a stomachache once a week or more during the previous six months* (%)

* Czech Republic and Spain did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

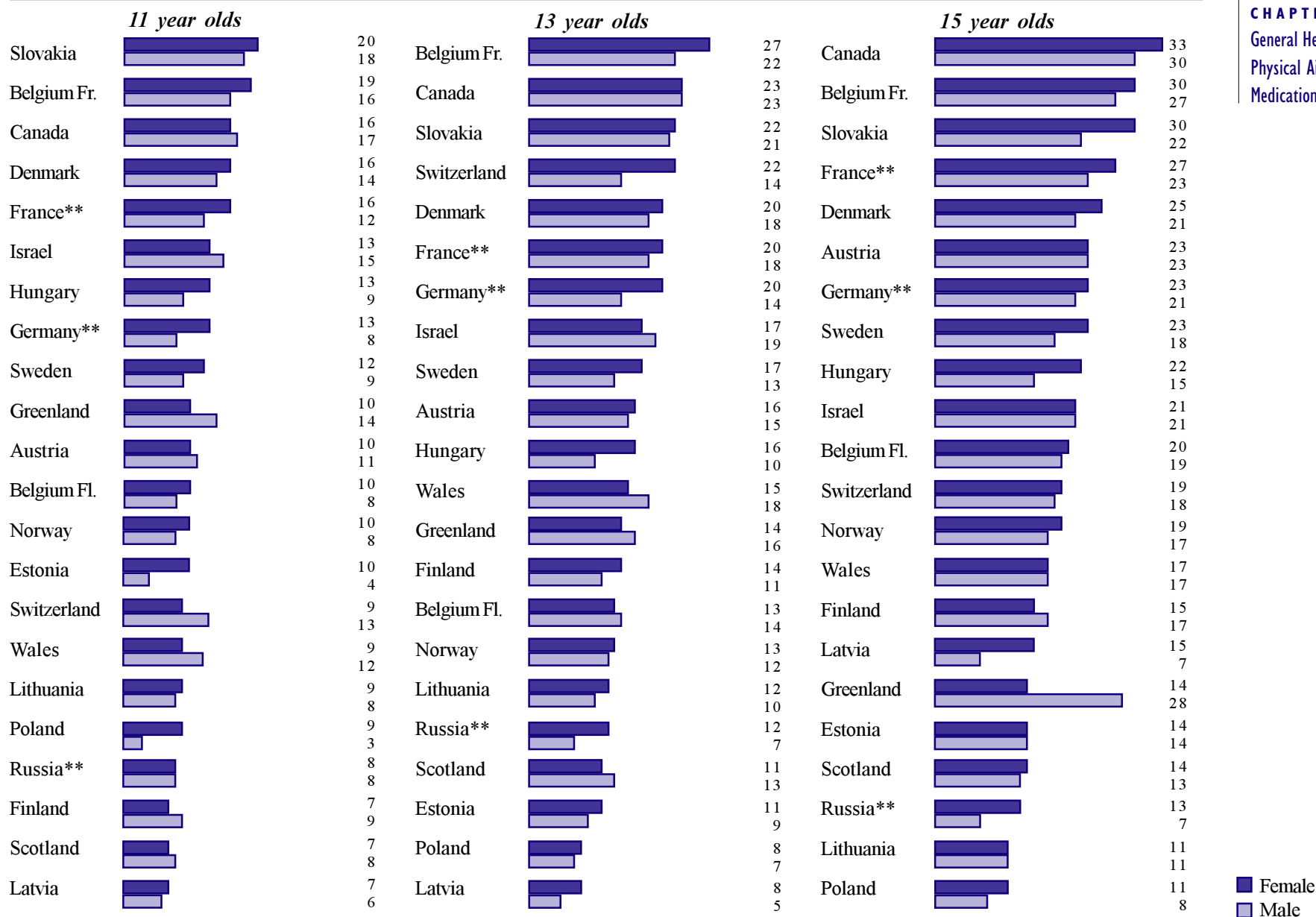
3. Backache

Having a backache is typically regarded as a common physical ailment of older people. Young people in this survey did seem to be less bothered by backaches than by either headaches or stomachaches but, in 13 countries, one-fifth or more of students, in at least one of the age groups surveyed, reported backaches at least weekly.

As was true for headaches and stomachaches, students in Belgium (Fr.), Canada and Slovakia were the most likely to complain of frequent backaches (Figure 5.8). Denmark and France also tended to rank high. Students from Latvia, Lithuania, Poland, Russia, and Scotland were consistently among the least likely to report backaches.

The incidence of backaches was similar for males and females across age groups with a few exceptions at age 15. Seven percent or more girls than boys in Hungary, Latvia and Slovakia said they had suffered backaches once a week or more in the past six months. In Greenland, twice as many boys as girls, 28 to 14 percent, reported backaches.

Also, fifteen year olds were more likely to have frequent backaches than 11 year olds with the largest increases being for girls in Canada (17%) and Austria (13%) and for boys in Greenland (14%), Canada and Germany (both 13%).

Figure 5.8 Students who had a backache once a week or more during the previous six months* (%)

* Czech Republic, Northern Ireland and Spain did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

4. Difficulty getting to sleep

Significant cultural differences in the sleeping habits of young people were found in the 1990 HBSC survey (Tynjälä et al., 1993). The proportion of participants reporting trouble falling asleep and getting too little sleep varied significantly among countries as well as among age groups. Students who have sleeping difficulties once a week or more may be reacting to problems in different areas of their lives, in their social relationships at home or at school (Wright & Wright, 1992). Insomnia is also linked to distress over school-related matters and is viewed as a response to the psychological distress that results.

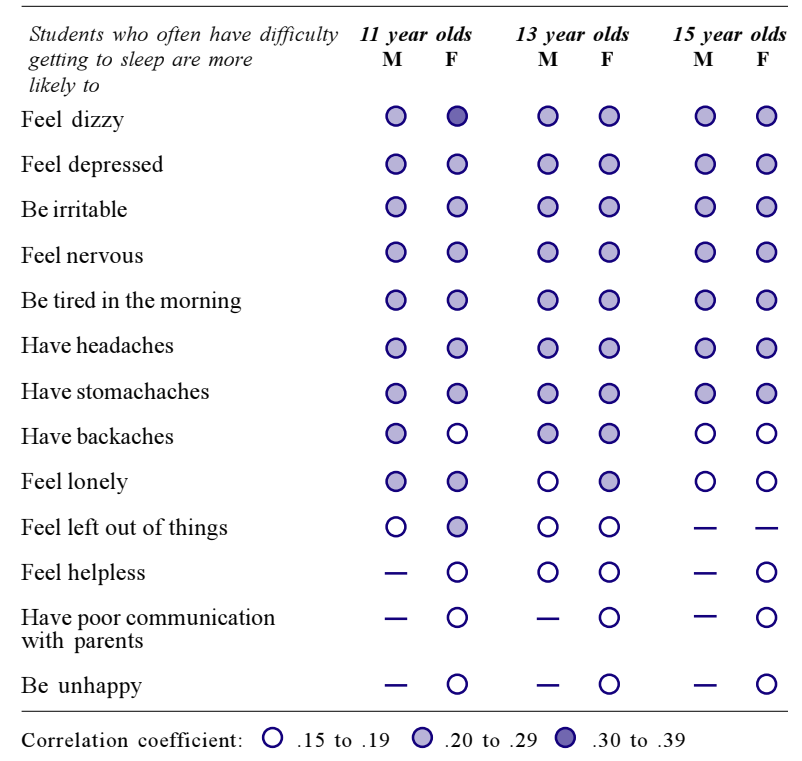
Figure 5.9 indicates some of the factors associated with sleeping problems for the respondents in this survey. Of course, each child is affected by a different combination of factors. Physical problems, such as headaches and backaches, interfere with sleep. Nervousness and depression may be causes of sleeping difficulties or they may result from lack of sleep. Certainly youth who do not get enough sleep are more likely to be irritable. For some students loneliness may be the primary cause – for some girls, sleeping problems are clearly linked to poor communication with parents. These problem areas require further analysis.

Substantial proportions of students in Canada, France and Wales reported frequent sleeping difficulties (Figure 5.10): over 40 percent of girls in these countries and nearly as many boys had difficulty getting to sleep at least once a week. Students from Belgium (Fl.), Hungary, Lithuania and Poland were the least likely to have difficulty sleeping across the three age groups.

More girls than boys reported difficulty getting to sleep, but generally, there were not large differences between their responses except in some higher ranking countries, where differences of between 7 and 13 percent were common. Only in Israel did slightly more boys than girls find it difficult to sleep at all age levels.

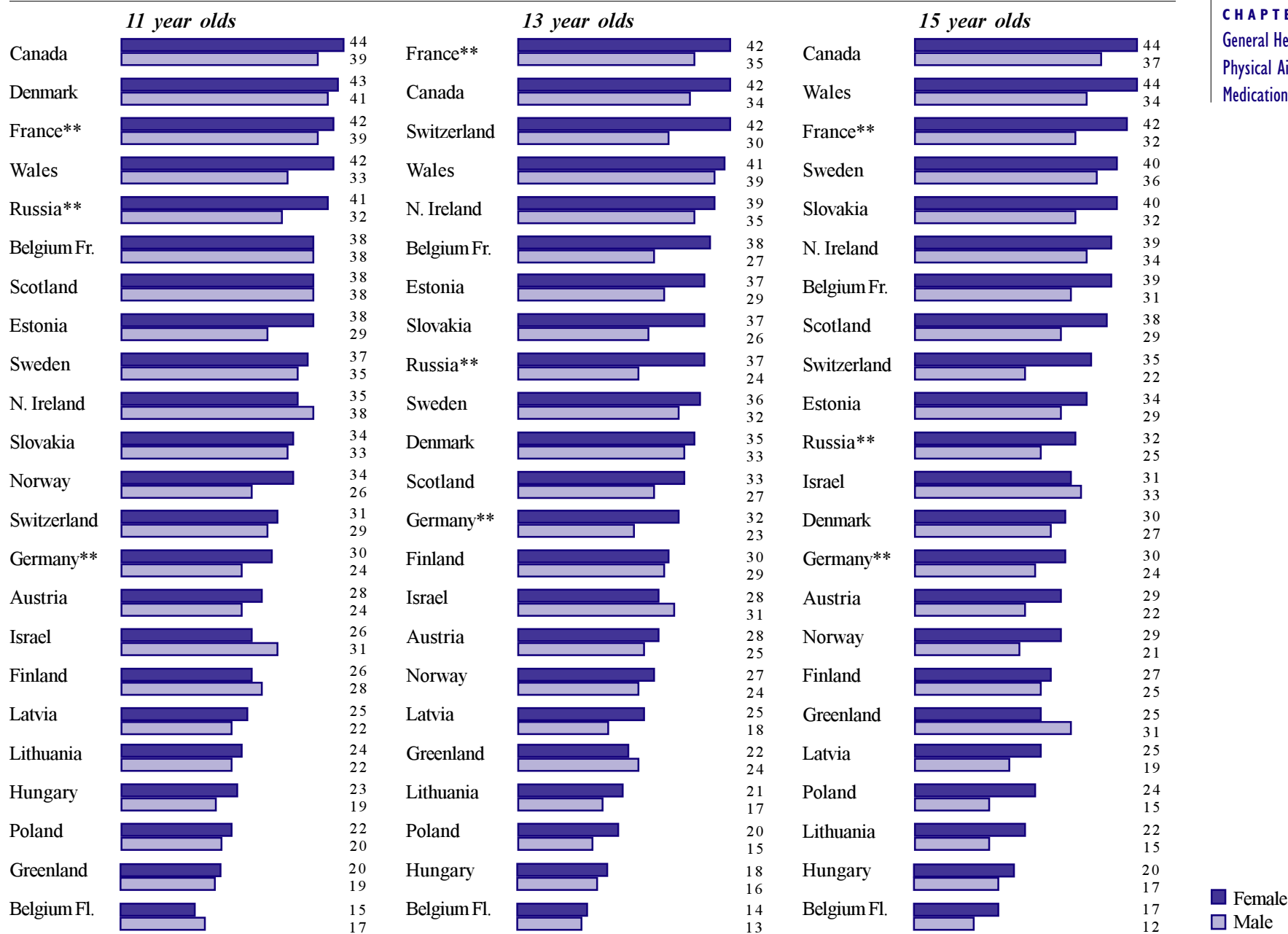
There was no clear pattern of either an increase or decrease in sleeping difficulties with age. In nine countries, the proportions of students remained about the same from age to age; about equal

Figure 5.9 Factors associated with having difficulty getting to sleep



numbers of the other countries increased or decreased slightly from age 11 to age 15. The exception was Denmark where 11 year olds were far more likely than 15 year olds to have trouble getting to sleep.

In general, substantially higher proportions of students had difficulty sleeping than felt tired most days (Figure 5.4). Among 11 year olds, Belgium (Fr.), Denmark, Estonia, Northern Ireland and Scotland ranked among the top ten countries on both questions; for 15 year olds, those from Canada, Northern Ireland, Sweden and Wales were among the top ten. Students from Greenland, Lithuania, Latvia and Poland tended to be among the least likely to feel tired in the morning and the least likely to experience difficulty getting to sleep once a week or more often.

Figure 5.10 Students who had difficulty getting to sleep once a week or more during the previous six months* (%)

■ Female
■ Male

* Czech Republic and Spain did not include this item.

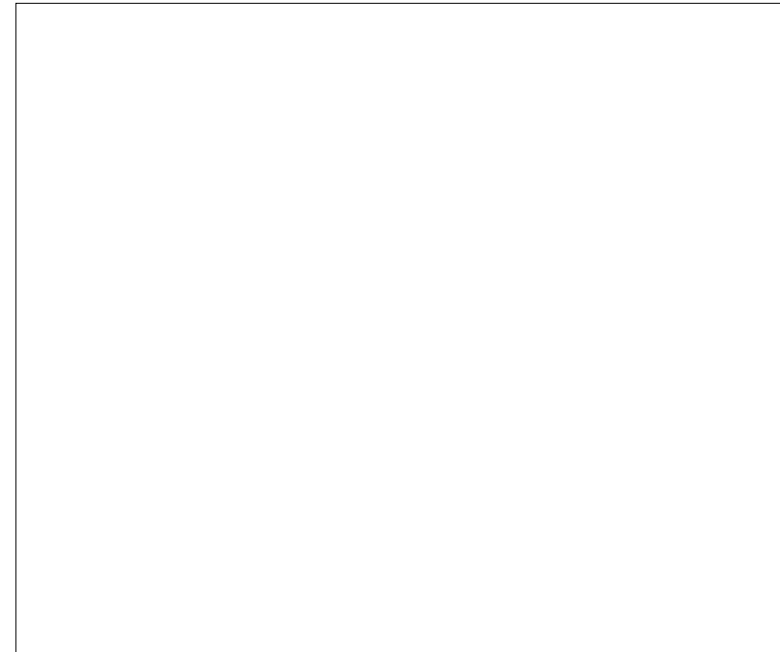
** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

5. Being in a bad mood (irritable)

Perhaps one of the most widely recognized characteristics of teenagers is the frequent mood swings they experience. As Figure 5.11 shows, irritability seemed to be a frequent occurrence among the adolescent participants in this survey. Proportions of boys and/or girls who indicated they were irritable once a week or more exceed one-half in 10 countries for 11 year olds, 11 countries for 13 year olds and 15 countries for 15 year olds.

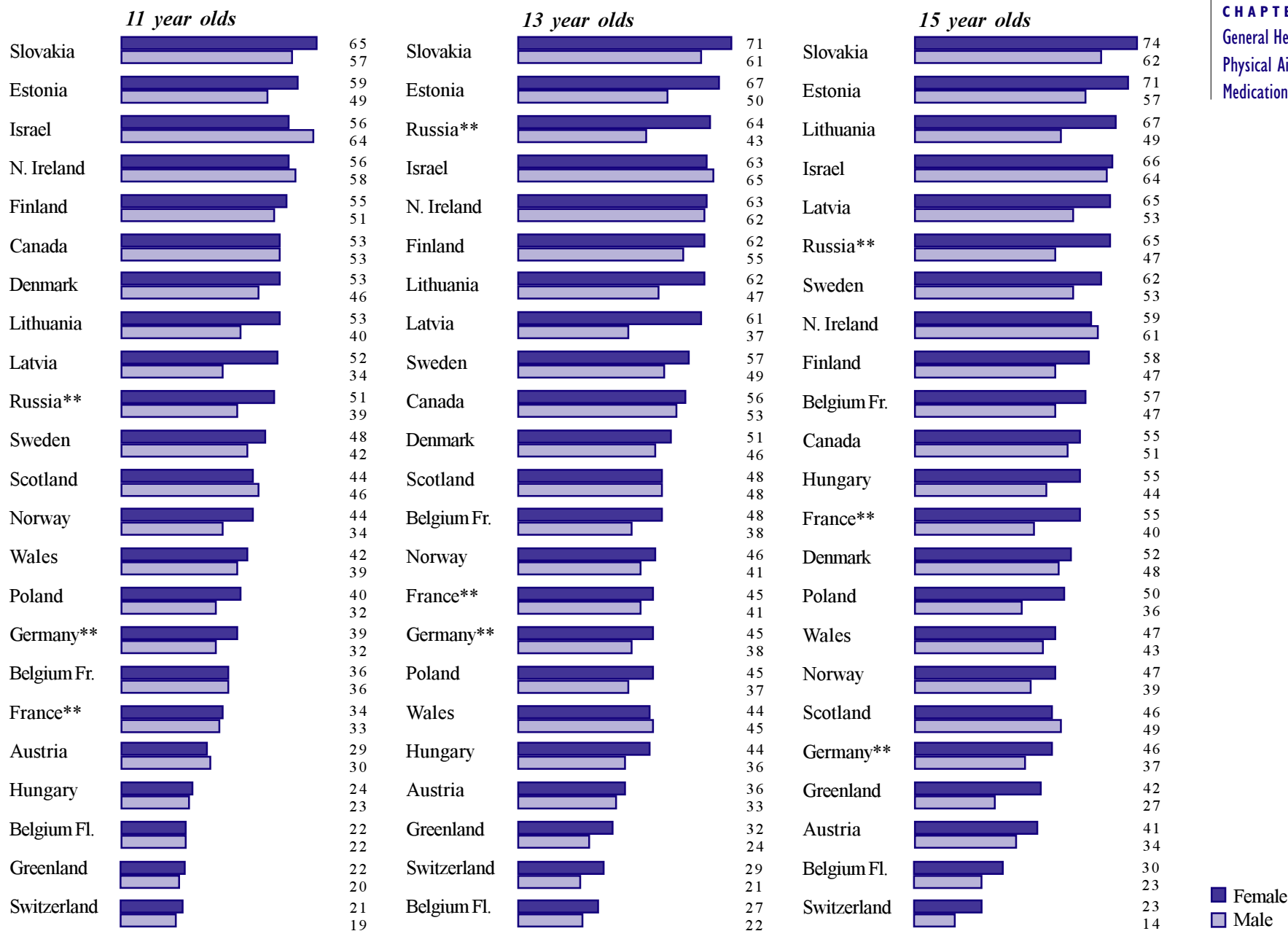
Estonian, Israeli and Slovakian students in all age groups were the most likely to say they were in a bad mood once a week or more. In the 13- and 15-year-old groups, Lithuanian and Russian girls were also among the most likely to be irritable. Students in Greenland, especially 11 and 13 year olds, Belgium (Fl.), Austria and Switzerland were among the least likely to be in a bad mood once a week or more.

Overall, girls were more likely to report being irritable. There were larger gender differences on this item among all age groups in Estonia, Latvia, Lithuania and Russia. There was no difference between 11-year-old girls and boys in France, but a 15 percent difference between 15 year olds in that country. Only 11 year olds in Israel reversed the pattern to any extent, with eight percent more boys than girls indicating they had been irritable at least once a week in the past six months.



Lithuania

In most countries, 15 year olds were more likely than students in other age groups to be in a bad mood once a week or more. The difference is very slight in Canada, Denmark, Norway and Scotland; it is larger for girls in France and Greenland and among both boys and girls in Belgium (Fr.) and Hungary.

Figure 5.II Students who were in a bad mood (irritable) once a week or more during the previous six months* (%)

■ Female
■ Male

* Czech Republic and Spain did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

6. Nervousness and dizziness

The students were asked to indicate how often they felt nervous (uneasy) and dizzy. Unlike such ailments as headache and stomachache, nervousness and, to a lesser extent, dizziness often appear as vague symptoms. As well, the terms may be understood differently across cultures and a cautious approach should be taken to national comparative data. Tension, strain or worry usually produce a sense of uneasiness which may or may not be referred to as nervousness by those who experience it. In a similar way, respondents may consider dizziness the vague feeling of light-headedness associated with hunger or lack of sleep or only more severe forms of disorientation such as vertigo.

The proportion of students who said they frequently feel nervous was quite high in some countries. In Israel, Poland and Slovakia, high proportions of students across age levels felt nervous once a week or more (Figure 5.12). In many countries, one-third or more of males and/or females said they had felt nervous once a week or more. In Denmark, Greenland, Norway and Scotland less than one-quarter of students reported nervousness weekly or more often.

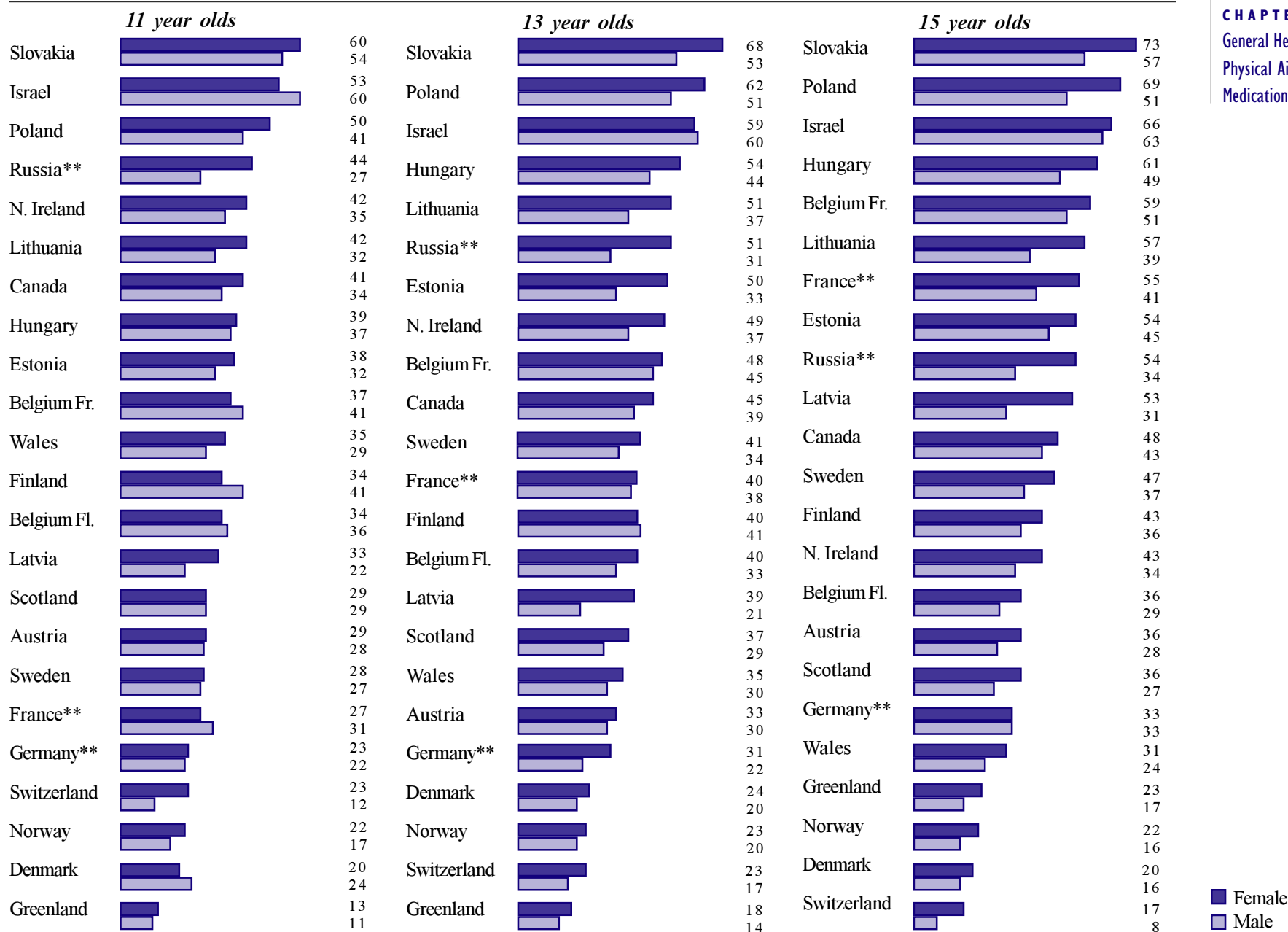
As with other health problems described, girls were more likely to feel nervous once a week or more. This was consistently true for 13 and 15 year olds. Among 11 year olds in six of the countries, boys were more likely than girls to feel nervous (Belgium [Fl.], Belgium [Fr.], Denmark, Finland, France and Israel), but overall the differences were very small.

Feeling nervous increased from age 11 to 15 in most countries. The range of responses is consistently wide within each age group, from 11 to 60 percent for 11 year olds; 14 to 68 percent for 13 year olds and 8 to 73 percent for 15 year olds.

Although feeling dizzy is not a major health problem among adolescents, it does seem to be a cause for concern in some countries. In Estonia, a very large proportion of students (over 40 percent of girls and one-third of the boys at all age levels) reported that they felt dizzy once a week or more. This is substantially higher

than in any other country. For all the other countries, the range of responses for males in all age groups is 5 percent to 24 percent; for females it is 10 percent to 32 percent. Similar to other health disorders, girls were more likely than boys to feel dizzy at least once a week. Generally, the differences were not great. Along with Estonia, Canada, Israel, Northern Ireland and Wales tended to rank among the top countries on this measure.

There was not a great deal of consistency across age levels in the countries where students responded most positively on this item and no clear overall pattern in the responses of students of different ages. In some countries, there was a steady increase from 11 to 13 to 15 year olds, mainly for girls. In the majority of countries (15 for boys, 12 for girls), the proportions of 11 and 15 year olds who frequently felt dizzy were within three percentage points. Finnish girls' responses showed the greatest difference between ages 11 and 15 – from 13 percent to 24 percent. Only the Belgium (Fr.) responses were consistently low across age groups.

Figure 5.12 Students who felt nervous once a week or more during the previous six months* (%)

* Czech Republic and Spain did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

D. Use of medication

The use of medication by students for the various physical ailments described in the previous section is considered here. It is important to note that the cost and availability of medication in individual countries may influence its use. As well, the general attitude of the adult population towards medication could have a bearing on whether or not students choose to take pills or other medicine. Although the survey question did not distinguish between prescription and over-the-counter (OTC) drugs, we assume that in most of the cases, it is the latter that are referred to by the respondents.

I. Headache medication

Advertisements for OTC headache medications are pervasive. In many countries, headache pills are probably one of the most readily available OTC drugs. Among the top countries in student use of headache medication were Canada, Northern Ireland and Wales in all age groups (Figure 5.13). Belgium (Fr.), France, Scotland and Sweden also tended to be among the top third of high utilization countries. It is interesting to note that among some of the high-use countries, there are common cultural roots, for example, the three United Kingdom countries and Canada, and Belgium (Fr.) and France.

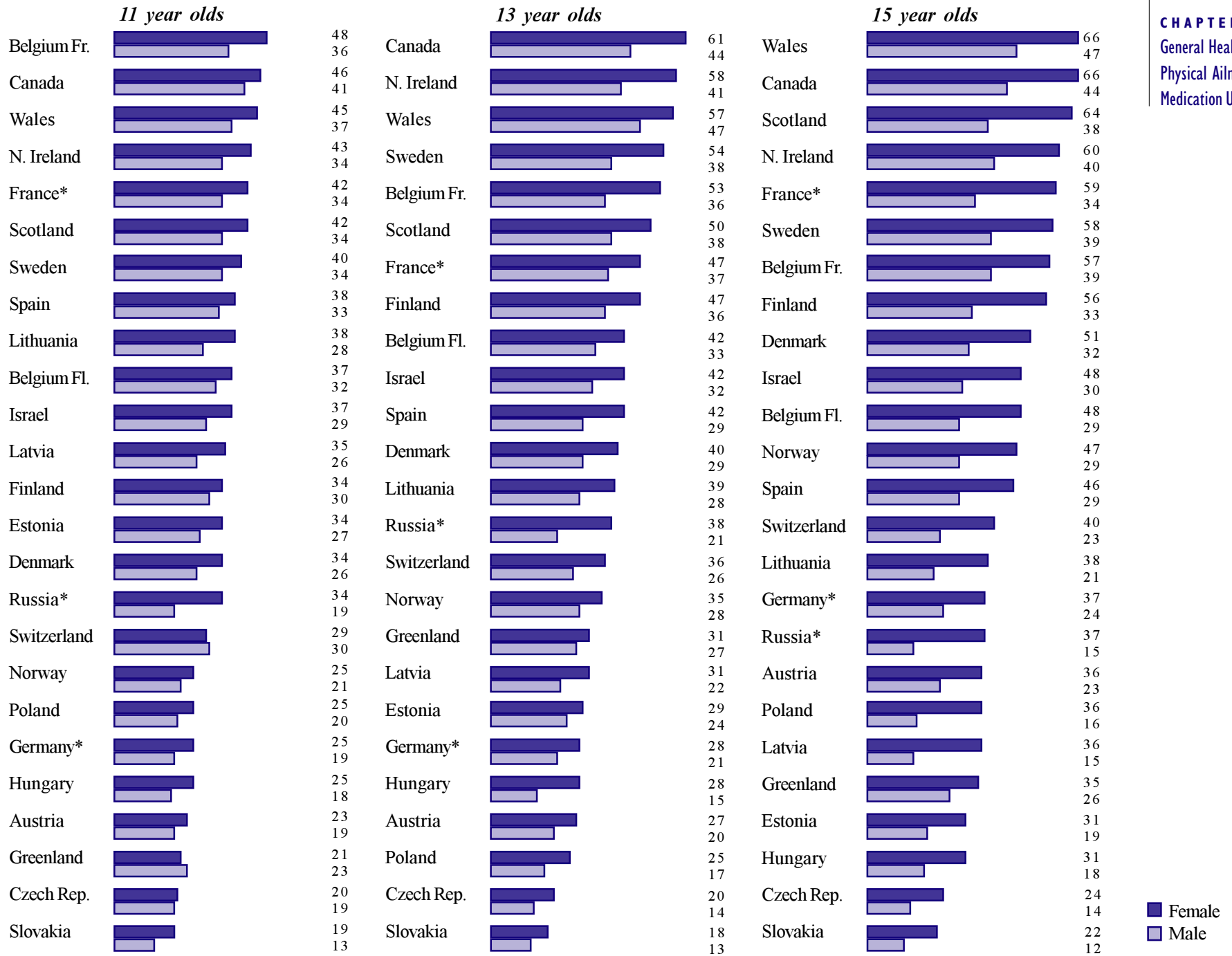
Young people in all three age groups were consistently less likely to take medication in Austria, the Czech Republic, Germany, Greenland, Hungary, Poland and Slovakia.

There was, as expected, a relationship between the use of headache medication and frequency of headaches. For each age group, more than one-half of the countries in the top 10 on this item are also in the top 10 among countries where respondents reported frequent headaches. Canada, Belgium (Fr.), Northern Ireland and Wales students at each age were among the 10 highest ranking countries on both measures. Only Austria, Greenland (girls) and Poland were consistently within the lowest 10 ranking countries for both items. For the 13 and 15 year olds overall, 14 countries showed consistency, eight in the higher ranking countries and six in the lower ranking

countries. One major anomaly was Slovakia where the fewest students in all age groups indicated they took medication, but where the most 11 year olds indicated they suffered from headaches. The 13 and 15 year olds were in the middle ranges.

Using headache medication was more common among girls than boys. This was true in all countries at all age levels except among 11 year olds in Greenland and Switzerland, where almost equal proportions of boys and girls had taken medicine for a headache in the previous month. Medication usage tended to increase with age, particularly among female students; the greatest increase occurred between 11 and 13 years of age.

Figure 5.13 Students who took medicine or pills for a headache during the previous month (%)



* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

■ Female
■ Male

2. Stomachache medication

As we have seen, stomachaches were a less common health problem than headaches for young people, but some students, especially older girls, did take stomach medication (Figure 5.14). It is difficult to understand this response because fewer older girls complained of stomachaches. Possibly they took medication for menstrual pain. Also, parents may have more control over the use of pills by younger children.

In three countries, more than one-quarter of 11-year-old girls reported having taken stomach medication in the previous month. This was true in nine countries for 13-year-old girls and in 16 countries for 15-year-old girls. The proportion of boys who reported that they had taken medicine for a stomachache exceeded 25 percent only for 11 year olds in Belgium (Fr.).

Taking medicine for stomachaches was most common in Belgium (Fr.) in all age groups. Girls, there, were also the most likely to report frequent occurrences of this ailment. Students in France, as well as 13 and 15 year olds in Wales and Northern Ireland, were also more likely than most others in their age groups to take stomachache medication. Students from Austria, the Czech Republic, Germany, Greenland, Hungary and Sweden were consistently among the least likely.

The relationship between the incidence of stomachaches and the use of medication for stomachaches is tenuous at best. There is very little consistency between the countries reporting the highest or lowest use of medication with those reporting similar incidence of stomachaches. Only the students in French-speaking Belgium reported both high medication use and high incidence of stomachaches. Greenlandic students were at the low end on both measures.

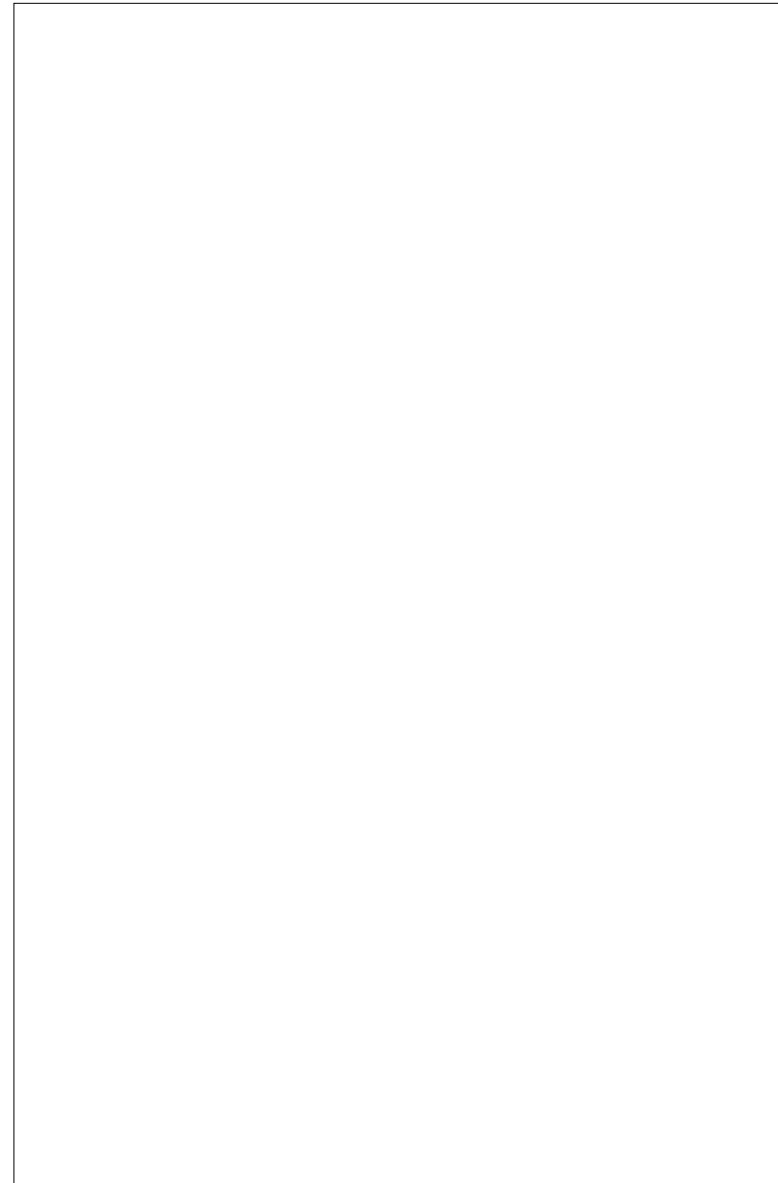
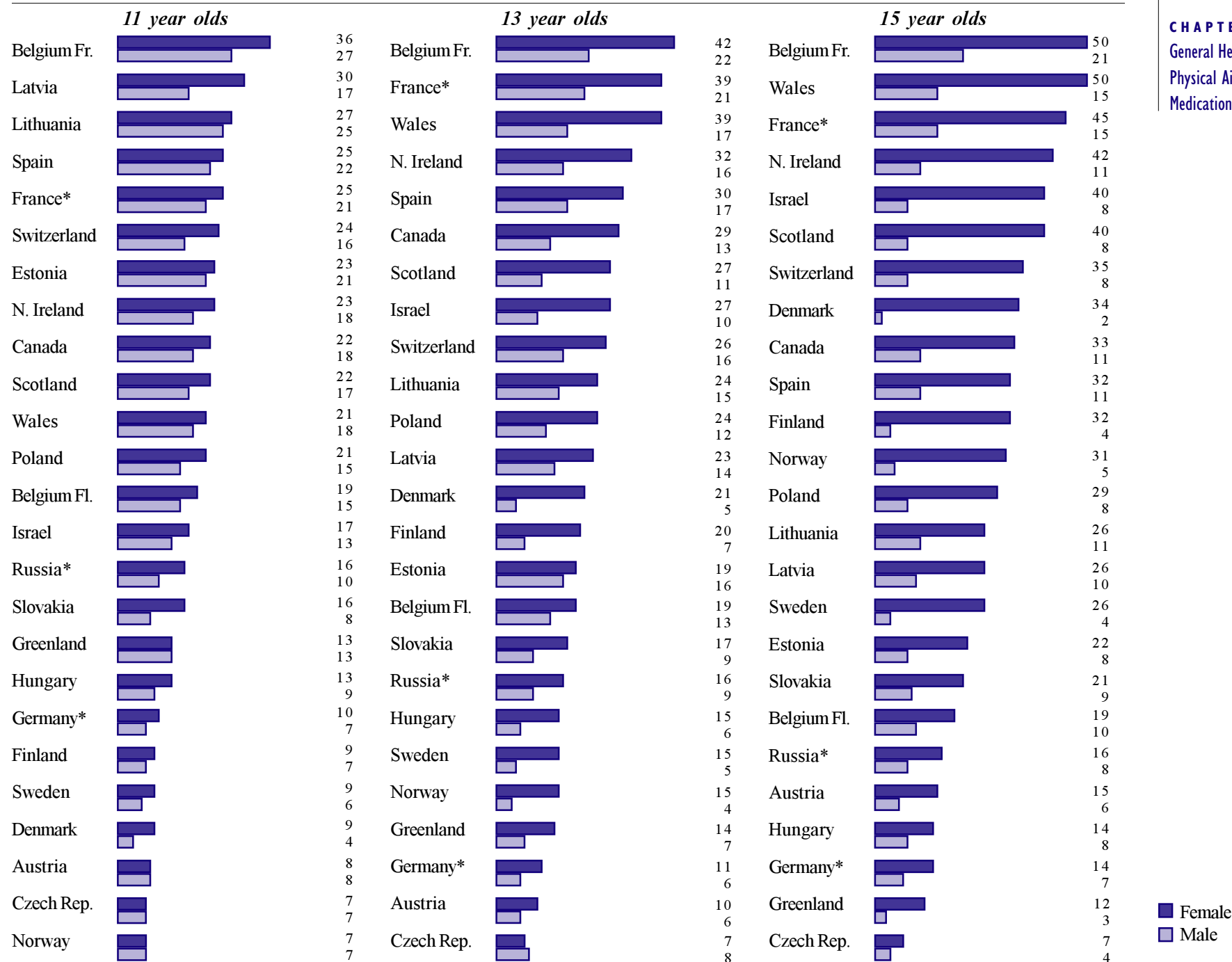


Figure 5.14 Students who took medicine or pills for a stomachache during the previous month (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

3. Medicine for difficulty getting to sleep

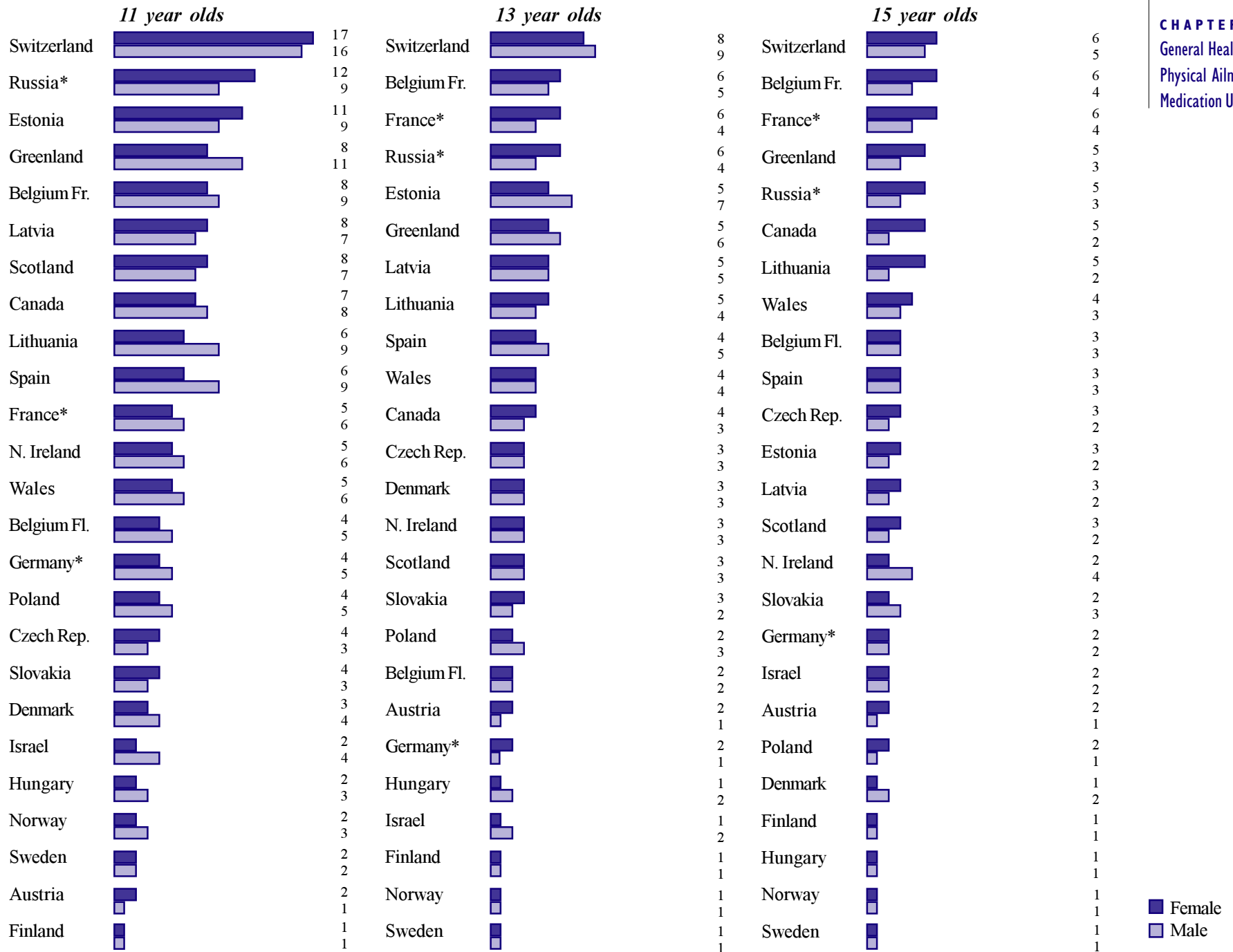
For the most part, extremely low percentages of students took medication or pills to help them sleep (Figure 5.15). Students in Belgium (Fr.), Russia and Switzerland were among the most likely in each age group to take medicine for this purpose, but, even in these countries, reported usage was low. Only for 11 year olds in Switzerland was it above 15 percent (17% for girls and 16% for boys) and in the vast majority of countries it was below five percent. Use of medication for sleeping difficulties by all age groups was almost negligible in Austria, Finland, Hungary, Norway and Sweden. Generally, very few students took medication to help them sleep compared with the proportion who reported some sleeping difficulties.

Boys and girls were almost equally likely to report taking medication for sleeping problems. The proportion of young people who took medication or pills to help them sleep either remained the same or declined from age 11 to 15.

4. Medicine for nervousness

Very few students reported that they take medicine for nervousness, the highest proportion being 12 percent. Between 10 and 12 percent of 11-year-old boys and girls in Estonia, Lithuania, Spain and Switzerland along with 11-year-old girls in Latvia and Russia said they had taken medicine for nervousness in the previous month. Although the proportions of students who indicated that they took medication tended to decrease between ages 11 and 15, students in the above countries remained among those who reported the highest incidence of usage. There was little correlation between countries where students often felt nervous and those where students took medicine for nervousness. Swiss students reported a low incidence of feeling nervous and Estonian and Lithuanian students were in the middle range. Gender differences in the use of medication were very small, but there was a tendency for more 11-year-old boys than girls to take medicine for nervousness and more 15-year-old girls than boys to do so.

Figure 5.15 Students who took medicine or pills for difficulty getting to sleep during the previous month (%)



■ Female
■ Male

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

5. Cough/cold medication

Overall, higher proportions, ranging from one-fifth to one-half, of students had taken medicine for coughs and/or colds (Figure 5.16) in the previous month than had taken medicine to treat headache or stomachache. Across all age groups, students in Canada, the Czech Republic, Poland and Wales were among the most likely to have taken cold/cough medicine and students in Austria, Denmark and Israel the least likely. All of the higher ranked countries administered the survey in the winter months, generally considered to be the season for coughs and colds; however, Denmark also administered the survey at this time, as did several other countries in which less medication was used. Austria, Israel and Spain administered their surveys in May, but Spain ranked relatively high on the use of cough/cold medicine.

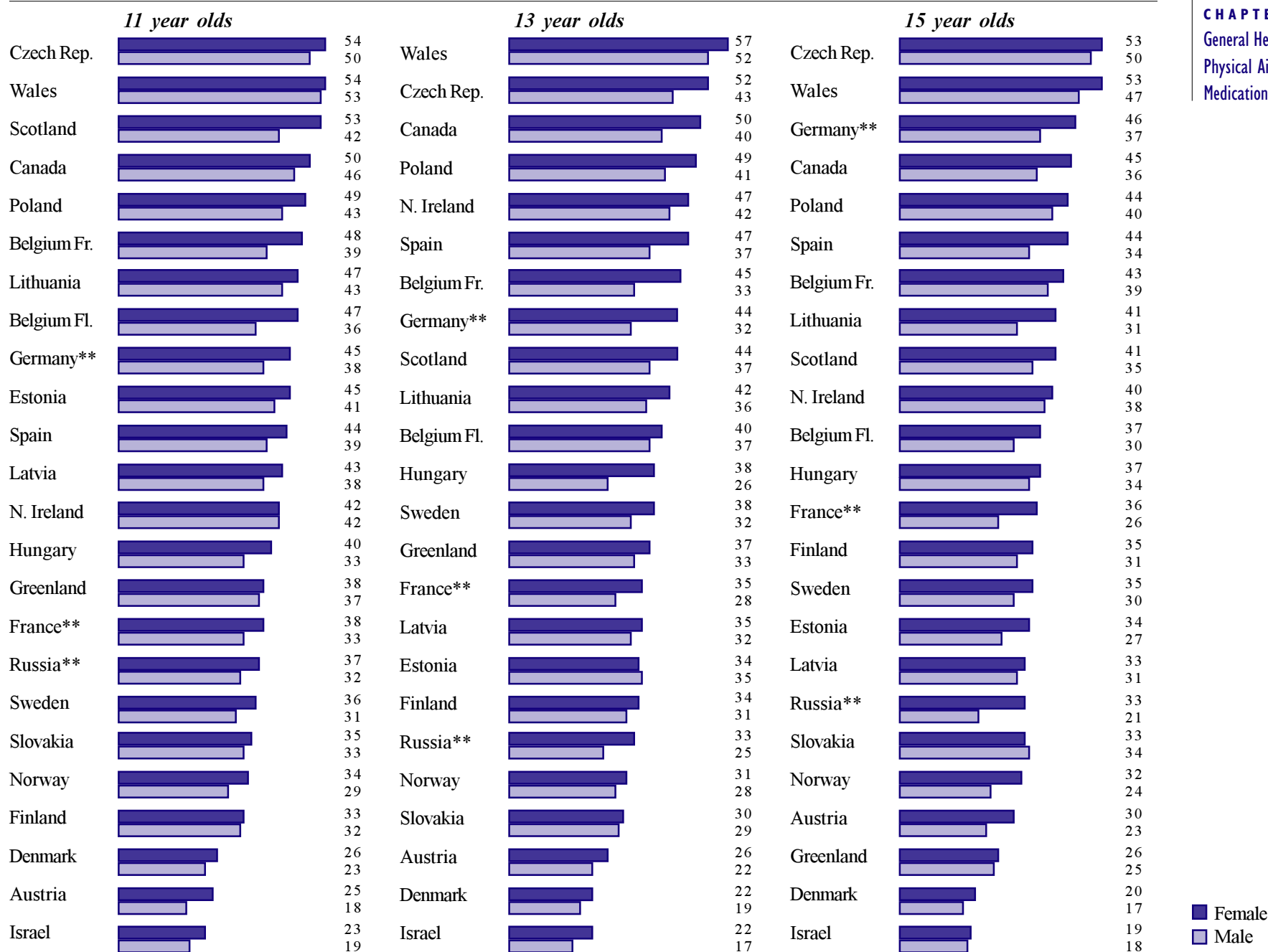
The proportions of students who had taken medicine for colds or coughs changed very little with age; percentages are slightly lower among the oldest students surveyed in half of the countries. In virtually all age groups and all countries more of the girls had used cold/cough medicine, but the difference was more than 10 percent in only six countries and in only one age group in each of those countries.

E. Summary

High proportions of adolescents in many countries do not feel that they are very healthy. Many are troubled by physical ailments, especially girls. In fact, the overall portrait of the health of girls that emerges from the findings is cause for particular concern. Boys have a more positive perception of their health and girls are more likely to report health problems such as headaches, stomachaches, dizziness and sleeping difficulties, and to take medication or pills for their physical aches and pains.

Younger students tend to feel more positive about their health than older students. Fewer 11 year olds feel tired in the morning when they go to school. Age also appears to be associated with the health problems young people report: while younger students have fewer symptoms of headache, backache, nervousness or dizziness, they tend to get more stomachaches.

Medication for headaches and coughs/colds are the most common type of medicine students use. Few students take medication for sleeping difficulties or nervousness. The presence of physical symptoms does not always mean that students take medicine. More students reported stomachaches, backaches, dizziness and nervousness than treated them with medicine.

Figure 5.16 Students who took medicine for coughs and/or colds during the previous month* (%)

■ Female
■ Male

* Switzerland did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

Psychosocial Adjustment

Psychosocial Adjustment

A. Introduction

B. Mental health

1. Happiness
2. Loneliness
3. Helplessness
4. Confidence
5. Depression (feeling low)

C. Peer relationships

1. Friendships
2. Time spent with friends

D. Relationships with parents

1. Communicating with mother
2. Communicating with father

E. Summary

A. Introduction

Good health practices include not only those that contribute to physical well-being, but also those that facilitate the development of sound emotional, social and mental health. Psychological well-being is closely linked with the quality of social relationships young people are able to establish with family members and peers. Two of the critical components of sound mental health are a caring and supportive family and accepting and understanding friends, both of which contribute to the development of self-esteem and a positive self-concept. A good self-image contributes to the healthy maturation of a young person. It is also true that young people who do not feel good about themselves are more likely to experience emotional problems.

Problems in establishing and maintaining good relationships with parents and friends are among the most common difficulties young people experience. Many studies have focused on the quality of the parent-child relationship and its influence on the peer relationships, school experience and risk-taking behaviours of young people. Open communication is the basis for positive parent-child interaction. Young people who believe they are not accepted by their peers may be lonely and become depressed, especially if they suffer extreme forms of exclusion such as bullying and avoidance (Ramsey, 1994; Vara, 1994; Kafka & London, 1991).

In this chapter, we attempt to provide answers to the following questions:

- What is the mental health status of the young people surveyed?
- Do they find it easy to make friends and to talk to their friends?
- How much time do they spend with their friends?
- How well do young people communicate with their parents?

B. Mental health

The mental health status of young people both influences and is influenced by all other areas of their life: relationships with others, adjustment at school and the risks they may take with their health. For this survey five items were used to assess students' mental health: how happy they said they were and how often they felt lonely, helpless, confident and depressed.

I. Happiness

The concept of being “very happy about your life” captures the level of contentment young people feel when they are satisfied with the most important areas in their life – school, family, friends and their own personality and physical characteristics. To the question, “In general, how do you feel about your life?” students could respond: very happy; quite happy; not very happy; or not happy at all. Happiness, or subjective well-being, is an attitude suggesting the absence of worry, anxiety and depression and a general satisfaction with life as a whole (Robinson et al., 1991). In Figure 6.1, the factors that are most strongly correlated with happiness in this survey are listed. Good health and happiness tended to be linked together, which suggests that health is an important component of happiness. Satisfaction with school and good relationships with parents and peers were associated with happiness. It is also important to note that happy children were less likely to have periods of irritability, nervousness and helplessness and more likely to be confident and satisfied with their appearance. They were also less likely to have headaches, to be dizzy, to have difficulty getting to sleep and to be tired in the morning.

Figure 6.1 Factors associated with happiness

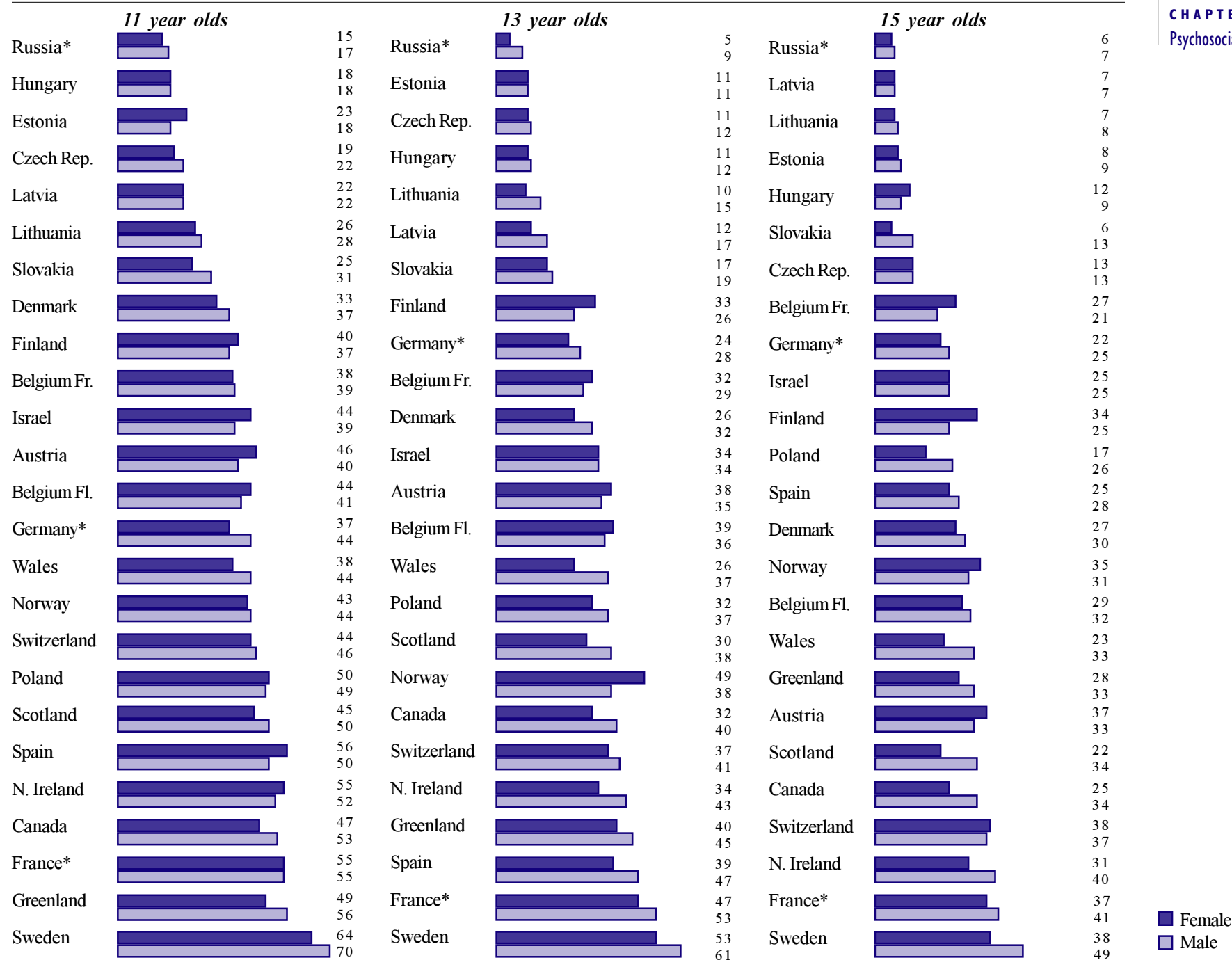
<i>Students who are happy are more likely to</i>	<i>11 year olds</i>		<i>13 year olds</i>		<i>15 year olds</i>	
	M	F	M	F	M	F
Be well integrated socially	●	●	●	●	●	●
Feel healthy	○	●	●	●	○	○
Have a positive attitude toward school	○	●	○	●	○	○
Not feel depressed	○	●	○	●	○	●
Not be irritable	○	●	○	○	○	●
Not feel nervous	○	●	○	○	○	●
Feel confident	○	●	○	○	○	○
Have good communication with parents	○	●	○	○	○	○
Not feel helpless	○	●	○	○	○	○
Be satisfied with their appearance	○	●	○	○	○	○
Say parents are willing to come to school to talk with teachers	○	●	○	○	○	○
Say parents are willing to help them with problems at school	○	○	○	○	○	○
Say parents encourage them to do well at school	○	○	○	○	○	○
Believe their family is well off	○	○	○	○	○	○
Achieve well in school	○	○	○	○	○	—
Not want to change anything about their body	○	○	○	○	○	—
Not feel stressed at school	○	○	○	○	—	—
Not have headaches	—	○	—	○	—	○
Not have difficulty getting to sleep	—	○	—	○	—	○
Not feel dizzy	—	○	—	○	—	○
Not be tired in the morning	○	○	—	—	—	—

Correlation coefficient: ○ .15 to .19 ● .20 to .29 ● .30 to .39

The majority of students said they were either very or quite happy, but, as can be seen in Figure 6.2, there were pronounced differences from country to country in the proportion who said they were very happy. More students from Sweden than from other countries in each age group indicated they were very happy. Students in Canada, France, Greenland, Northern Ireland and Scotland were among the more positive respondents at all ages. Students in the eastern European countries of the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Russia, and Slovakia tended to be the least likely to say they were very happy. These countries are also those where students were the most likely to say they were not happy at all.

Slightly more boys than girls felt very happy in most countries. There were some exceptions: in Austria and Finland, girls' responses were more positive than boys' across age groups, and in Norway 11 percent more of the 13-year-old girls than boys were very happy with their life. Israeli boys and girls at age 13 and 15 were equally likely to be very happy.

The youngest students tended to have the most optimistic outlook. Even in some of the countries where comparatively higher proportions of respondents said they are very happy, for example, in France, Greenland and Sweden, the proportion of students who felt very happy declined, sometimes substantially, by age 15. In Sweden, 64 percent of 11-year-old girls and 70 percent of 11-year-old boys felt very happy, but by age 15 only 38 and 49 percent, respectively, felt this way.

Figure 6.2 Students who felt very happy about their life (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

2. Loneliness

Although most adolescents feel lonely occasionally, young people who are frequently lonely may have difficulty relating to others, may feel rejected or may be experiencing other serious emotional distress. Generally speaking, teenagers want to be accepted and do not want to be regarded as loners by others.

Loneliness indicates an absence of satisfying social and interpersonal relationships and can have a profound impact on emotional and physical well-being (Page et al., 1986; Young, 1982). Many studies have found lonely youth to be highly susceptible to participating in health-risk behaviours compared with youth who are not lonely (Page et al., 1994; Page, 1990; Mijuskovic, 1986). These adolescents are more likely to use marijuana, smoke cigarettes, be physically inactive and have eating disorders (Torres Rivas & Fernandez Fernandez, 1995; Page, 1990). Social isolation and rejection by one’s peers can have a devastating effect on both the mental and physical health of adolescents (Brage et al., 1993).

Not surprisingly, the lonely student was more likely to feel left out of things (Figure 6.3) and to be an easy target for bullies. Of great concern are the physical and emotional problems these data show to be associated with loneliness. Echoing the results of the studies cited above, those adolescents who felt lonely were more likely to experience physical problems and various forms of psychosocial distress. They were more likely to be depressed, helpless, irritable, nervous and to lack confidence; they also tended to suffer from headaches, stomachaches and dizziness. However, unlike lonely students reported in other research studies, the youth in this study who described themselves as lonely were no more likely to smoke and drink to excess than their peers.

Frequent feelings of loneliness, with a few exceptions, did not seem to be a major problem for the majority of students. In most countries, 15 percent or less of 11 and 13 year olds and less than one-fifth of 15 year olds suffered from loneliness very or quite often (Figure 6.4).

Figure 6.3 Factors associated with feeling lonely

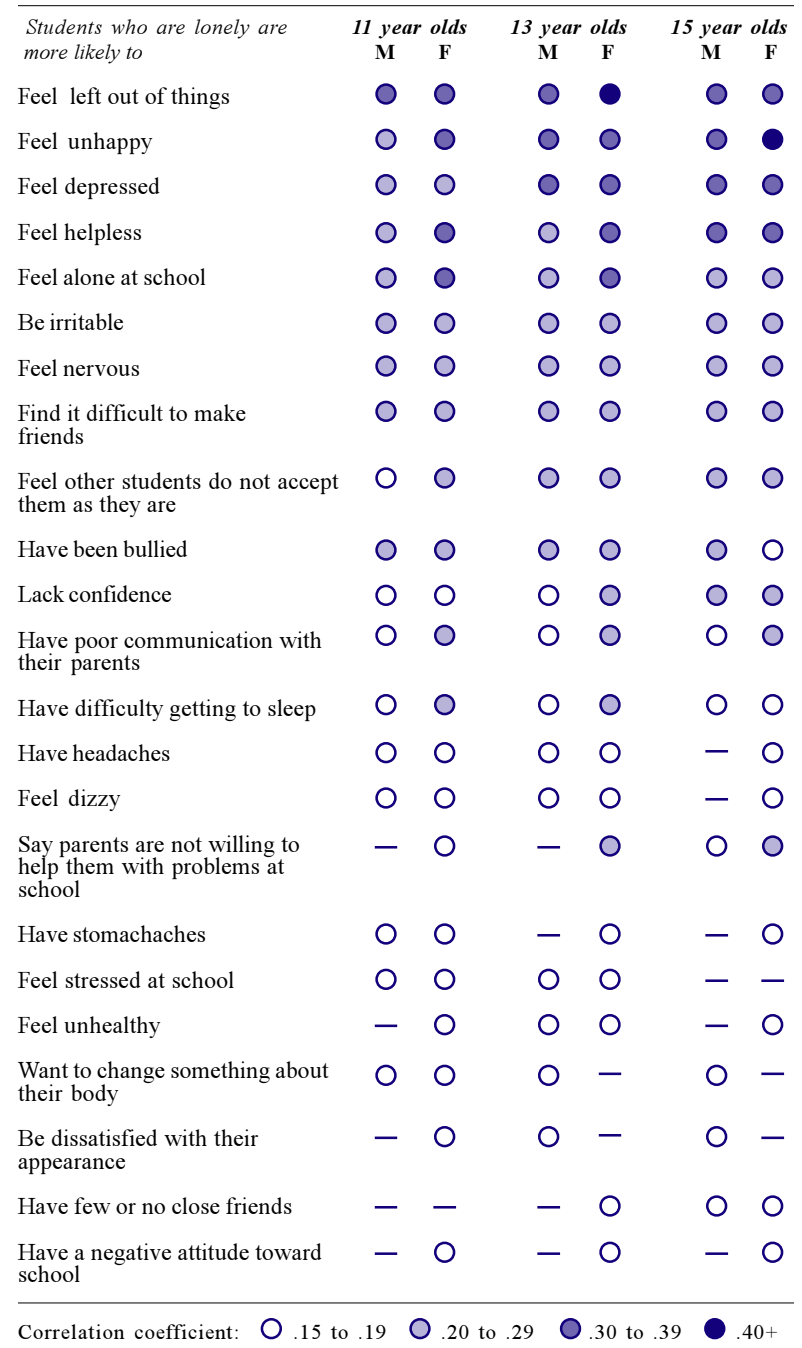
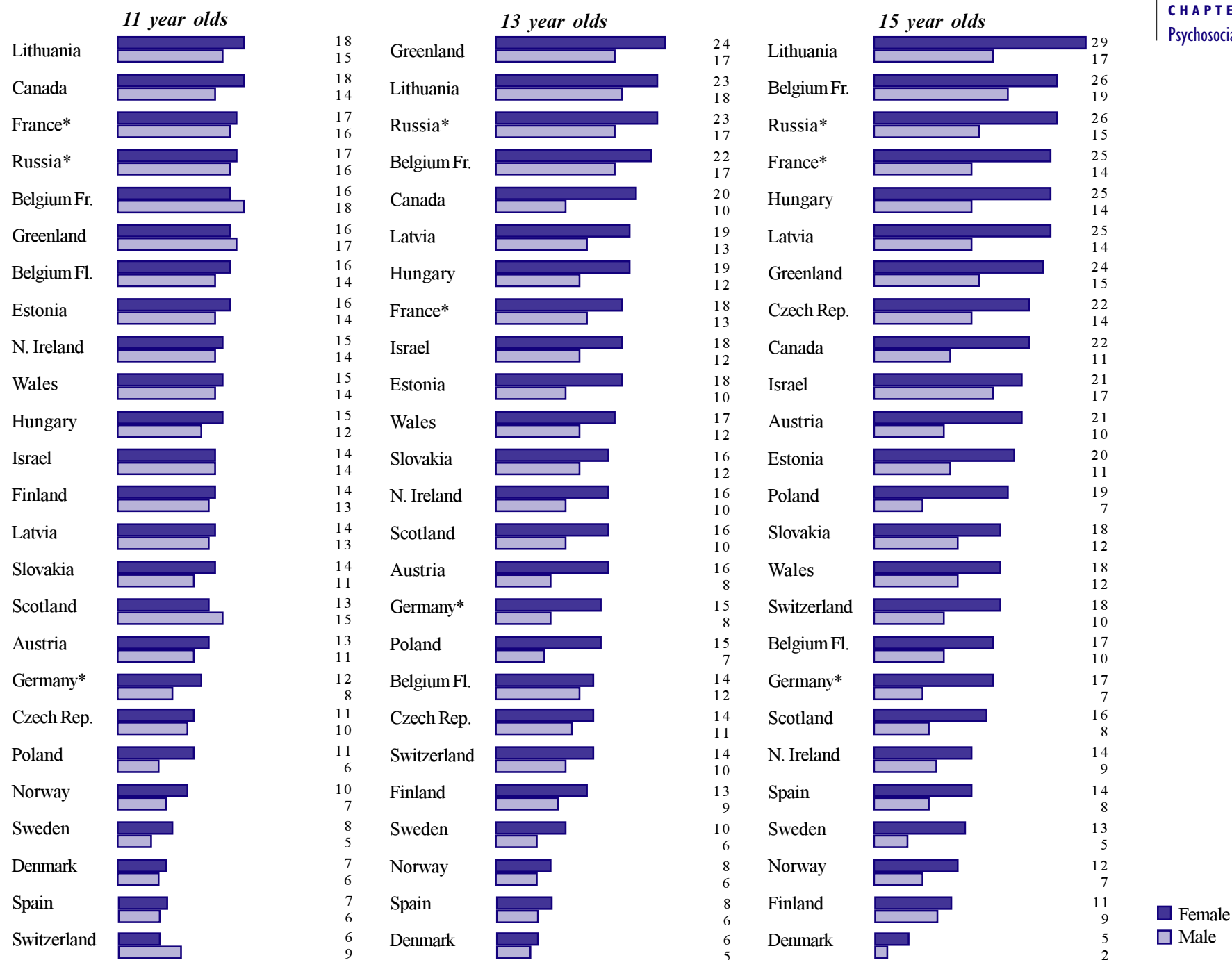


Figure 6.4 Students who felt lonely very or quite often (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

■ Female
■ Male

Of the countries with the highest proportions of lonely students in each age group, Belgium (Fr.), Greenland, Lithuania and Russia appeared in all three groups. Students in the Scandinavian countries – Denmark, Finland, Norway and Sweden – and Spain were the least likely to experience loneliness.

Girls were more likely than boys to frequently feel lonely – in some countries, twice as likely, especially among the 13 and 15 year olds. In Poland, for example, at all ages, twice as many of the girls felt lonely. Pronounced gender differences also occurred in Canada for 13 and 15 year olds, and in Austria, France, Germany, Greenland, Hungary, Latvia and Lithuania for 15 year olds.

Generally, the proportion of girls who frequently felt lonely increased from age 11 to 15 while boys' responses decreased or remained about the same. In a few countries, such as the Czech Republic and Israel, the responses of both boys and girls increased with age.

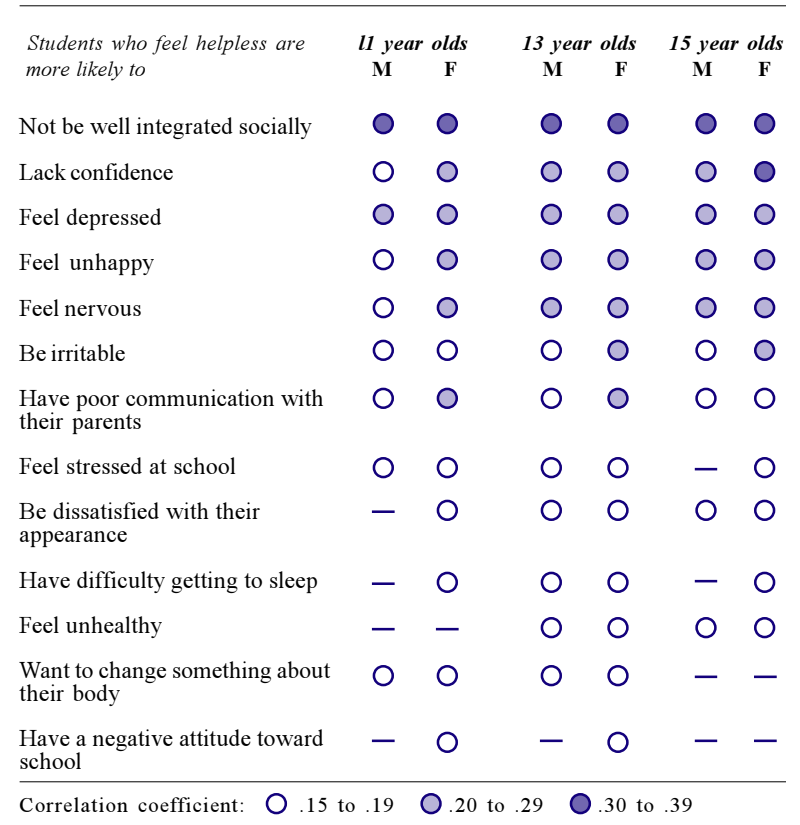
3. Helplessness

A feeling of helplessness is characterized by a sense of being vulnerable and powerless to influence the form and direction of one's life. Students who frequently feel helpless may believe they cannot influence what goes on around them. They may feel alone and unprotected. Such feelings would certainly negatively affect their self-image and their interactions with others.

A number of researchers have associated helplessness or powerlessness with social isolation (Robinson et al., 1991), which was also found in this survey. Young people may feel helpless for a variety of reasons: their appearance, traumatic experiences (e.g., the death of a loved one, the separation of parents) and stressful relationships at home or at school.

The factor most highly correlated with feeling helpless in this survey is poor social integration (Figure 6.5). Helplessness was associated with poor relationships with peers and parents, periods of depression and general unhappiness. Students who often felt helpless were also more likely to lack confidence, feel nervous and generally unhealthy. Younger students were more likely to want to change

Figure 6.5 Factors associated with helplessness



something about their body. Girls and younger boys were likely to feel stressed at school and younger girls to have a poor attitude toward school.

Relatively few students – 10 percent or fewer in each age group – always or often felt helpless (Figure 6.6). In France and Belgium (Fr.), however, two to three times this number of students frequently had feelings of helplessness. This may be explained in part by a different interpretation of the term helplessness in the French language. Thirteen and 15 year olds in Lithuania were more likely than most other students to feel helpless as were 11-year-old boys in Greenland, 13-year-old girls in Northern Ireland and 15-year-old girls in Hungary and Poland.

Figure 6.6 Students who felt helpless always or often (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

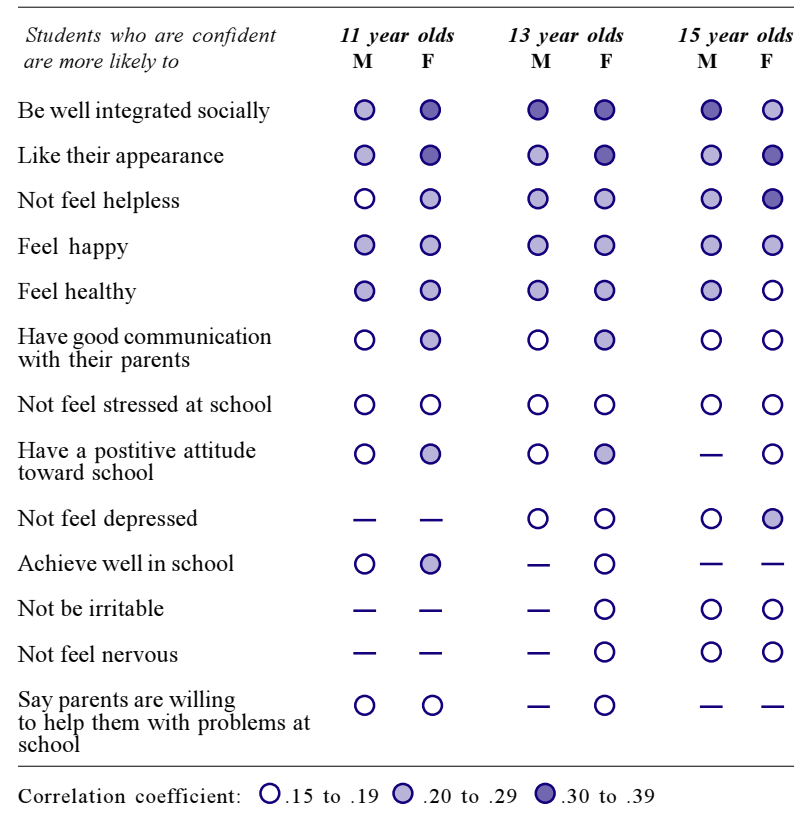
Six percent or less of students in Finland, Sweden and Russia said that they always or often felt helpless. Other countries with relatively low proportions of youth who often felt helpless across age groups are Denmark, Latvia, Estonia (13 and 15 year olds), and Canada and the Czech Republic (11 and 15 year olds). There was a high degree of similarity between the responses of boys and girls. The largest gender differences – only 5 to 6 percent – occurred for 15 year olds in France, Germany, Hungary, Lithuania, and Poland. Only in Israel did slightly more of the male respondents in every age group say they often or always feel helpless. There were only small differences by age.

4. Confidence

Researchers have studied confidence as a component of self-esteem or self-concept. The literature presents evidence for strong associations between confidence and friendship (Torres Rivas & Fernandez Fernandez, 1995; Connolly & Konarski, 1994; Connor, 1994) and between confidence and perceptions of appearance (Fox et al., 1994). The latter association was found to be particularly strong among girls. These findings, including the gender differences noted, are borne out in this study: for the students surveyed, the main factors that contribute to a sense of confidence included good friends with whom they can communicate effectively and satisfaction with their looks (Figure 6.7). The findings also showed that confident children are more likely to have a positive attitude toward home and school, and a good relationship with parents, and they are less likely to manifest problems associated with depression, nervousness and irritability.

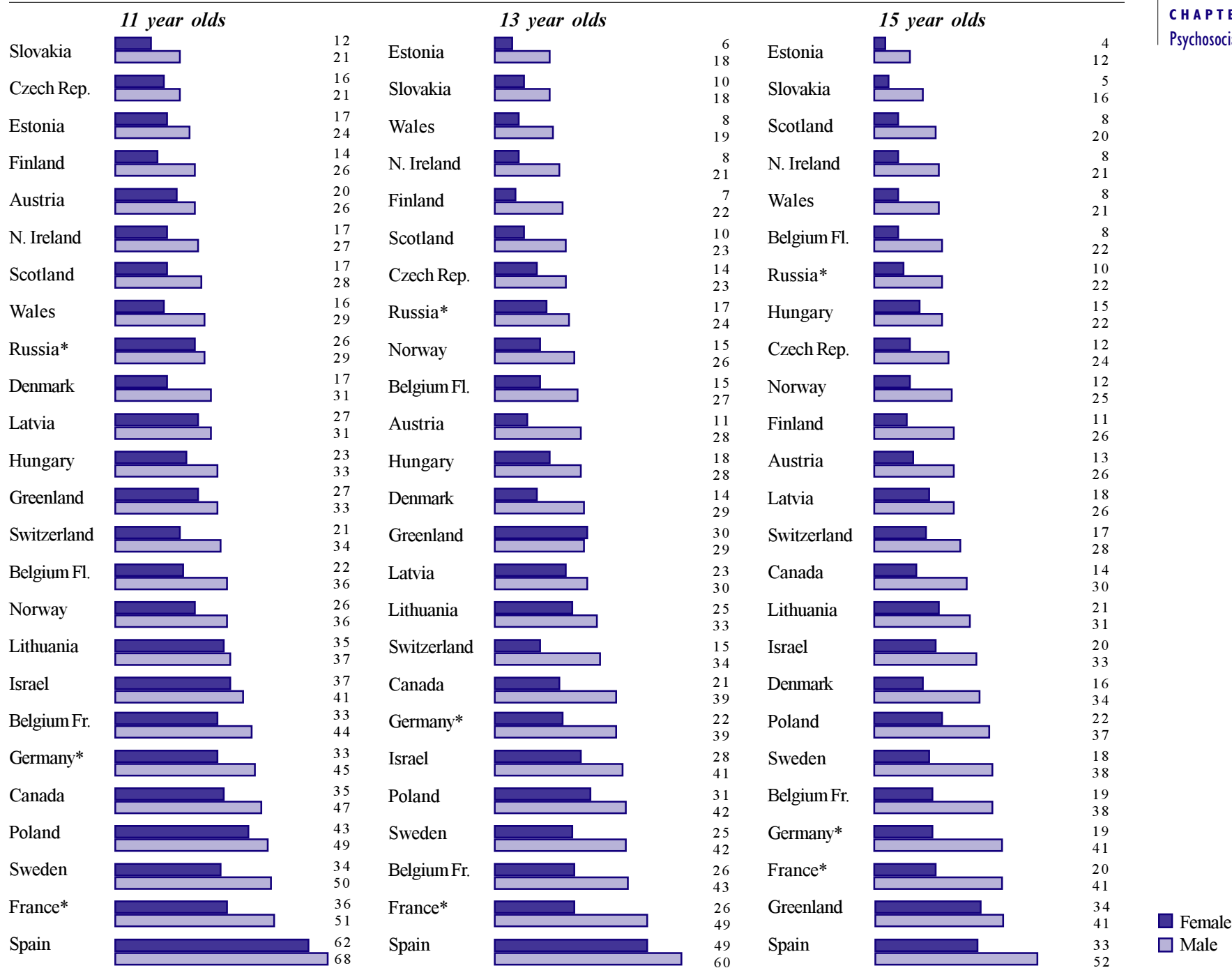
The greatest proportion of students who said they always feel confident were from France and Spain (Figure 6.8). Students in Belgium (Fr.), Germany, Poland and Sweden were also more inclined to say they were always confident. Estonia, Northern Ireland, Scotland, Slovakia and Wales were among the countries whose students were less likely to always feel confident. Girls were substantially less likely than boys to always feel confident with differences up to 25 percent for 11 year olds in France. The difference

Figure 6.7 Factors associated with feeling confident



between the genders is most pronounced by age 15 when, in the majority of countries, between 10 and 22 percent more boys than girls always feel confident.

In general, the proportion of students' who always feel confident decreased as they got older: 13 and 15 year olds were less likely than 11 year olds to always feel confident. Although the proportions of both boys and girls tended to decrease with age, the decrease was more pronounced for girls. The exception is in Greenland where 15-year-old boys and girls were more likely than either of the other age groups surveyed to have confidence in themselves. The responses of Danish girls were similar at age 11 and 15. The decrease in the proportion of girls who always felt confident was substantial in Canada, France, Poland, Spain and Sweden.

Figure 6.8 Students who always felt confident (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

■ Female
■ Male

5. Depression (feeling low)

Depression among young people is frequently linked to other problems such as insomnia, poor self-image and a lack of achievement in school (Morrison et al., 1985). Depression can occur in varying degrees of intensity, from a general feeling of “sadness” to a mental state characterized by thoughts of suicide (Dixon, 1987). Some studies have found over a quarter of young teens suffer from depression at some level, although relatively few are severely depressed (Connelly et al., 1993). Boys and girls who are depressed appear to react differently (Baron & Campbell, 1993). While boys may be irritable, withdraw socially and suffer from insomnia, girls become less positive about their body image; they lose their appetite, and consequently lose weight and become sad and unhappy.

In this study the students who described themselves as depressed tended to have other problems as well, with gender differences similar to those reported in other studies (Figure 6.9). At all grade levels and for both genders, they were more likely to have headaches, backaches and stomachaches, and be irritable, nervous, dizzy and tired in the morning. They tended to feel isolated from other students and to be unhappy overall. The relationships were stronger for females. This combination of physical and emotional problems is clearly a serious issue that requires the attention of health educators and health professionals.

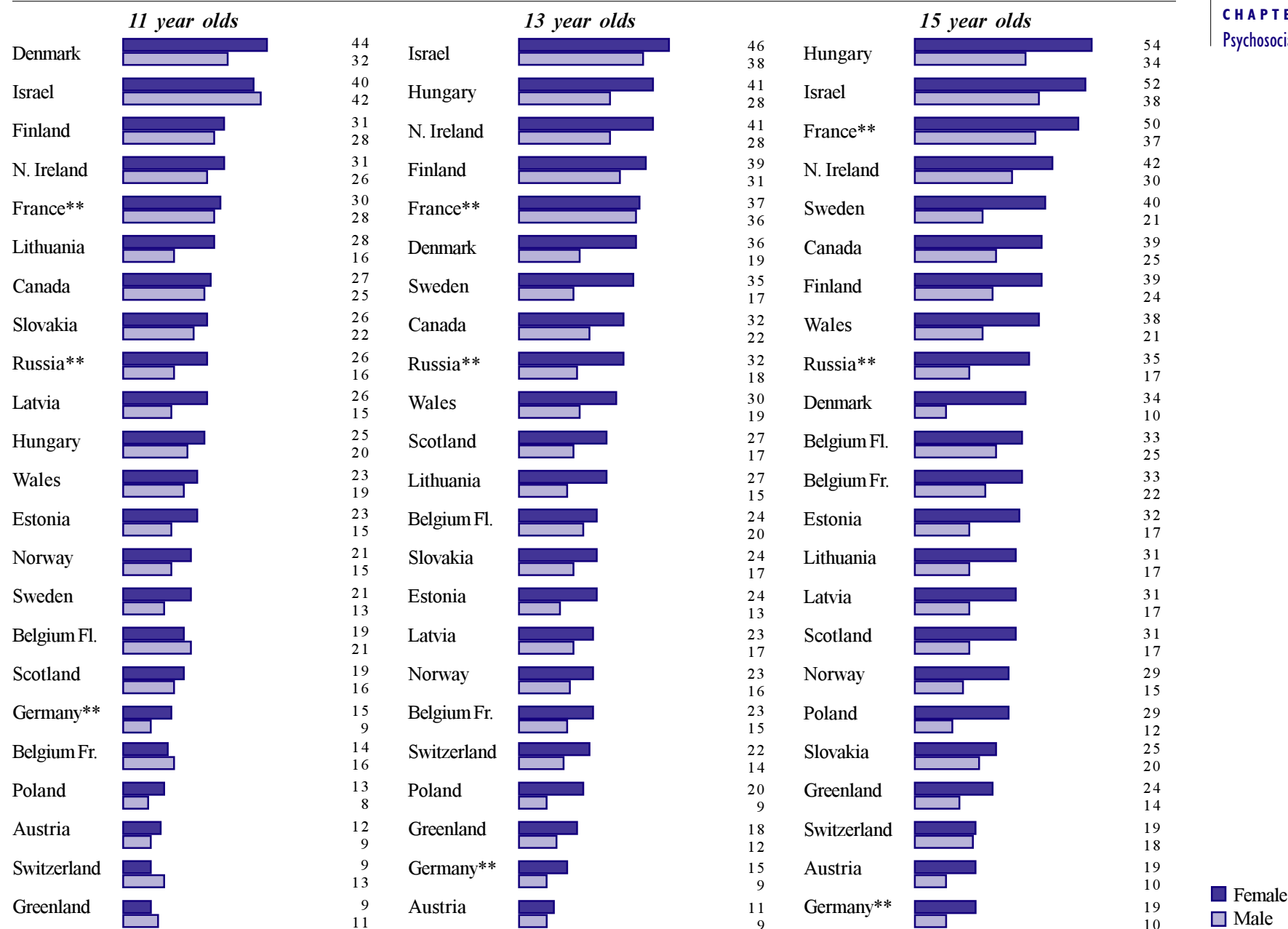
Students in Canada, France, Finland, Israel and Northern Ireland were consistently among those more likely to report being depressed once a week or more (Figure 6.10). Eleven and 13 year olds in Denmark and 13 and 15 year olds in Hungary and Sweden were also more likely than most other students to feel depressed frequently.

Across the three age groups, students in Austria, Germany, Greenland, Poland and Switzerland were the least likely to feel depressed. There is a wide range of responses for different groups of students. For girls, there is a difference of 35 percent between the countries ranking highest and lowest for each age group. For boys, the differences between highest and lowest are 31, 29 and 28 percent for the three

Figure 6.9 Factors associated with feeling depressed



age groups. Girls in almost every age group in every country were more likely than boys to feel depressed, with the difference widening as age increased. In Denmark, for example, three times as many 15-year-old girls as boys said they were depressed at least once a week. Minor exceptions were found among 11-year-old respondents.

Figure 6.10 Students who felt low or depressed once a week or more* (%)

* The Czech Republic and Spain did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details..

Fifteen year olds were more likely than younger students to feel depressed. In only Denmark and Slovakia did more 11 year olds than 15 year olds report being depressed among both boys and girls. In the majority of countries, the proportion of girls who said they were depressed increased with age; in 18 countries, the increases were 7 percent or more with Hungarian girls registering a 29 percent increase between age 11 and 15. Boys' responses tended to increase slightly or remain about the same, the most notable exception being Hungary where they increased 14 percent and in Denmark where they dropped 22 percent.

C. Peer relationships

A number of dimensions of peer relationships are examined in this section, including friendships, time spent with friends and whether young people feel they are included or excluded from their peer group. Studies of peer relationships suggest that having friends and having supportive friends are associated with a good self-concept, a sense of belonging, a positive outlook and success in future relationships (Hartup, 1993). Other aspects of peer relationships, including bullying behaviour, are examined in Chapter 8, The School Experience.

I. Friendships

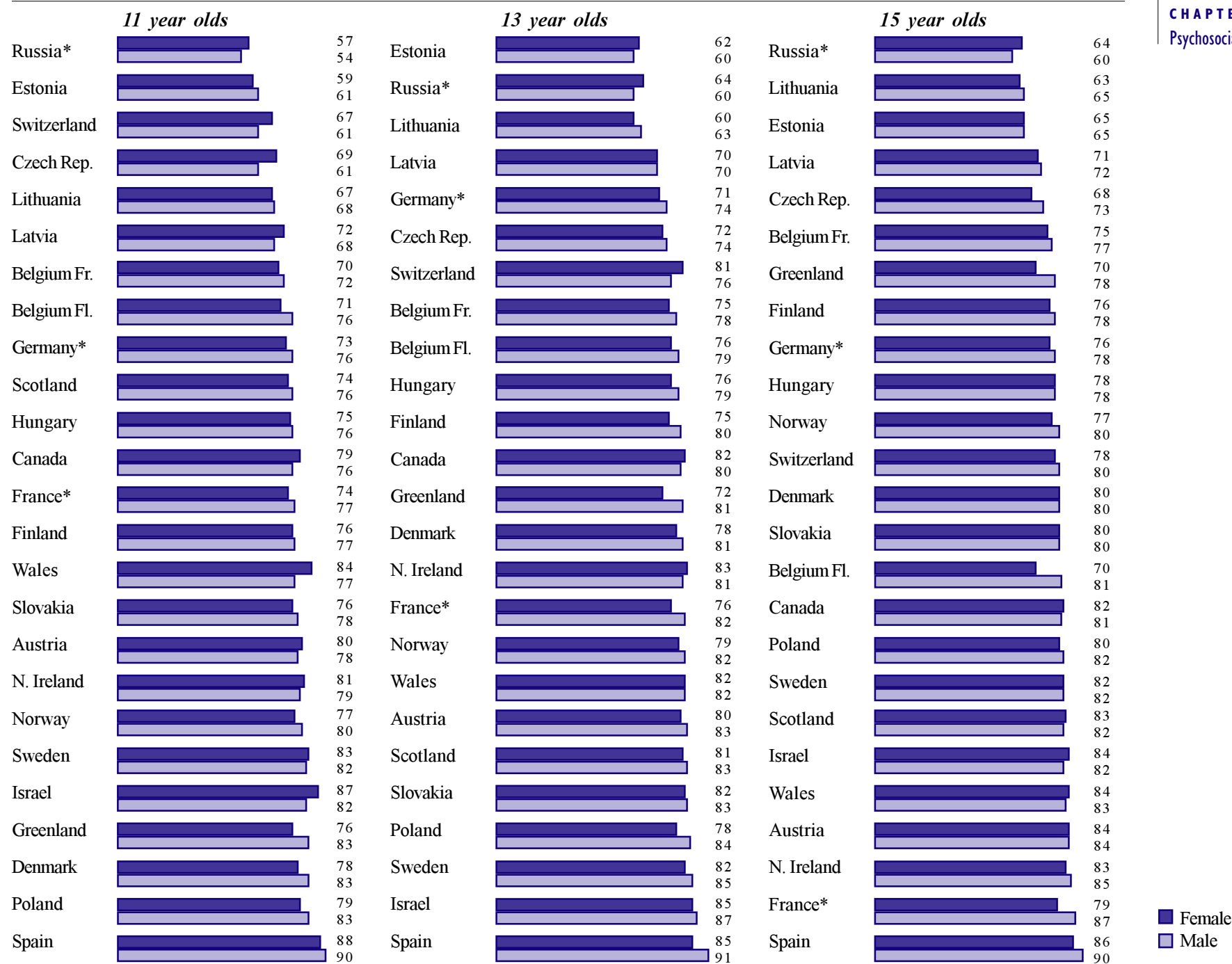
For many young people, having friends indicates that they are accepted; it is an important indicator of their self-worth. Friends can shape the lives of some young people as much as family members, and they can help move them toward or away from health-promoting behaviour (Connolly & Konarski, 1994; Hartup, 1993; Shulman, 1993; Parkhurst & Asher, 1992; Youniss & Haynie, 1992).

a. Making new friends

The proportion of students who responded that they find it easy to make new friends is below three-quarters in only a very few countries; however, there were interesting differences from country to country (Figure 6.11). For example, students in most eastern European countries were less likely to find it easy to make friends, while students in other European regions and in Israel were more likely to

say they make friends easily. About 80 percent or more of students in Israel, Northern Ireland and Sweden in each age group found making new friends easy, as did almost 90 percent of Spanish students. Less than 70 percent of students in Estonia, Lithuania and Russia in each age group said they find it easy to make friends. In Russia, the country ranked lowest, about 60 percent of students or less made friends easily.

Overall, boys were slightly more likely than girls to feel that they could make new friends easily. The difference in the responses of boys and girls by country is typically small; only in the Czech Republic and Wales did a substantially higher proportion of 11-year-old girls say they made friends easily. The general tendency is for students' responses to increase slightly from age 11 to 15; however, differences are not great.

Figure 6.II Students who found it easy or very easy to make new friends (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

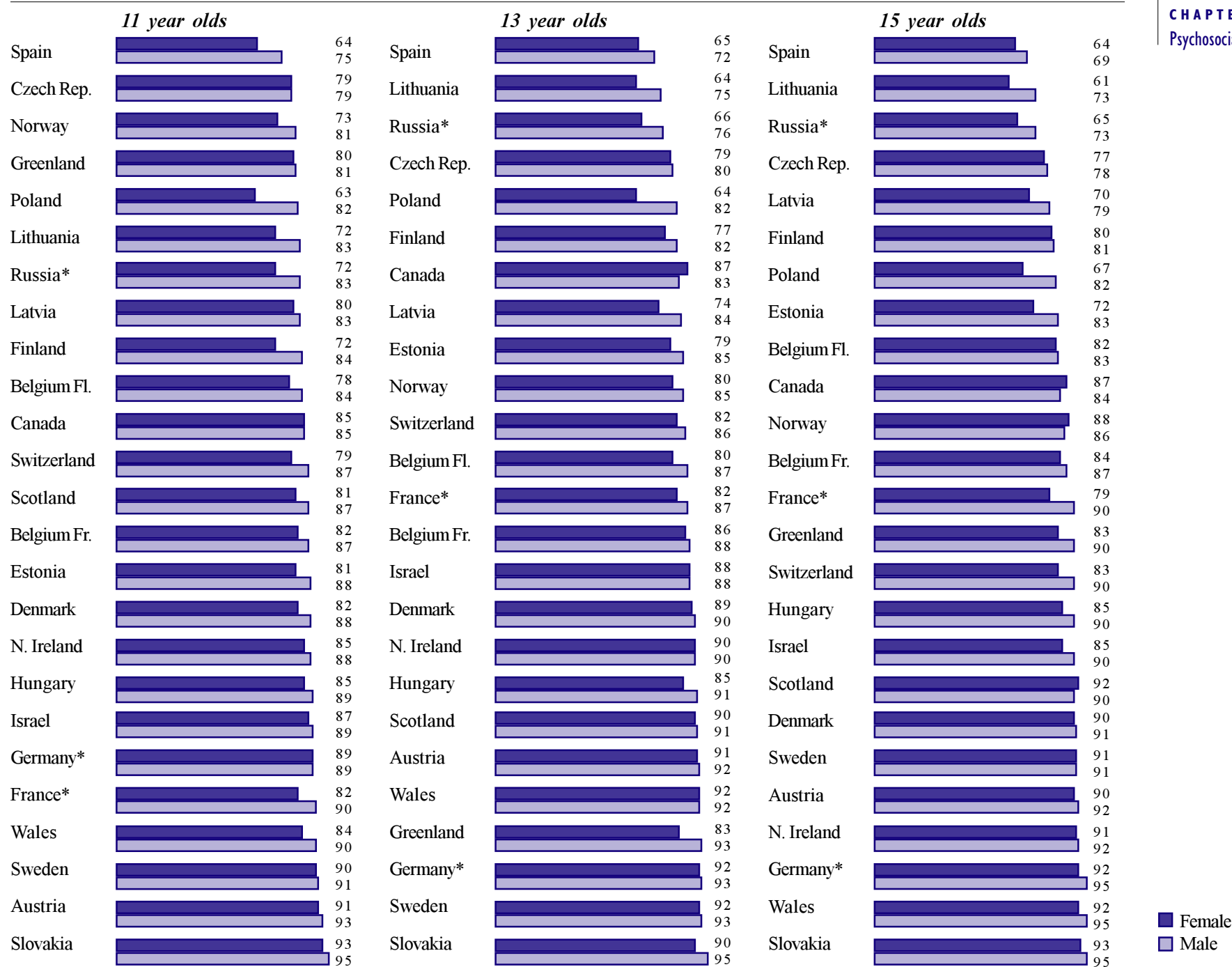


Spain

b. Close friends

The vast majority of students had two or more close friends (Figure 6.12). The students most likely to have more than one close friend were from Austria, Germany, Slovakia, Sweden and Wales. In some of these countries, 90 percent or more students had more than one close friend. In the Czech Republic, Lithuania, Poland, Russia and Spain, fewer students than in most other countries reported having two or more close friendships. Interestingly, although Spanish students were the most likely to feel they could make new friends easily, they were the least likely to have more than one close friend.

In most countries, boys were more likely than girls to have a number of close friends, but gender differences are small. The greatest gender difference is in Poland where 15 percent or more male than female students in each age group had more than one close friend. There was no clear age pattern in students' responses. In some countries – Austria, the Czech Republic, Hungary and Israel – the three age groups are within a few percentage points of each other. The largest decrease from age 11 to 15 is in Lithuania – about 10 percent for both girls and boys. The responses of girls increased from age 11 to 15 in Norway by 15 percent and in Scotland by 11 percent.

Figure 6.12 Students who had two or more close friends (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

■ Female
■ Male

c. Talking to friends of the same gender

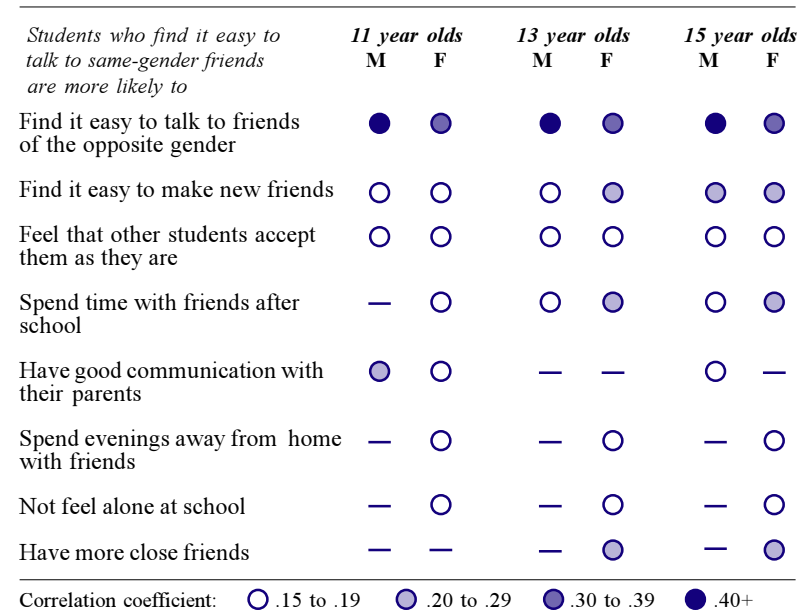
It is difficult for some young people to share their thoughts and feelings with their friends, even those of the same gender. For boys, ease in talking to friends of the opposite gender was more strongly correlated with ease in talking to friends of the same gender than was the case for girls (Figure 6.13). These findings reinforce those from other studies that show an association between good social skills and a sense of belonging (Hartup, 1993). At all grades, ease in talking with friends was linked to acceptance by others and for females in all age groups it is linked with not feeling alone at school. For the younger students, it was correlated with effective communication with parents.

Belgian (Fr.) and Estonian students at all ages were the most likely to report difficulty talking to their same-gender friends (Figure 6.14). Girls in France and Greenland and boys in Norway were also more likely than most other students to say they find it difficult to talk with friends of the same gender.

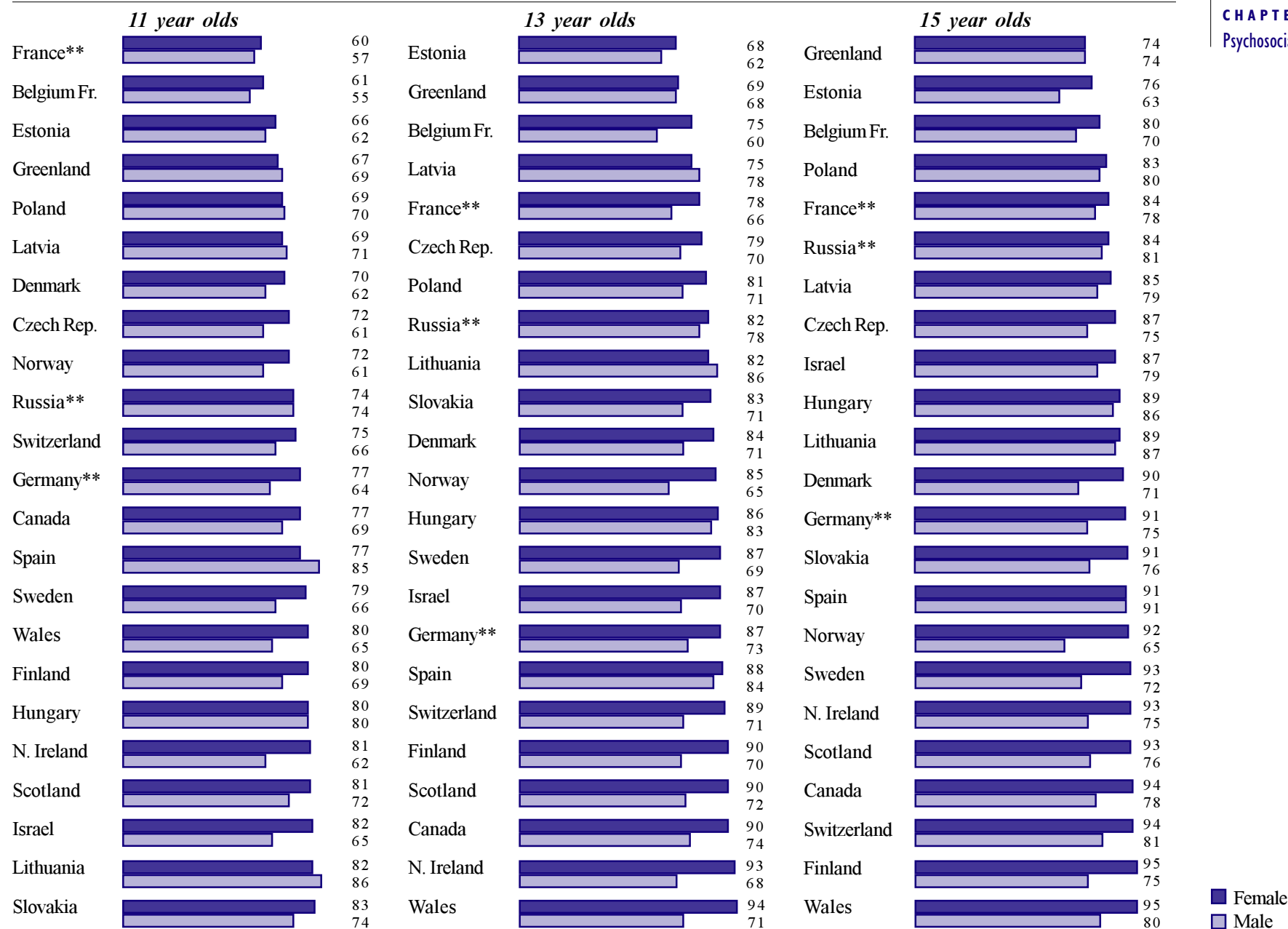
Countries in the United Kingdom – Scotland, Northern Ireland and Wales – as well as Finland had higher proportions of girls who said they found it easy to talk with friends of the same gender in all age groups. Thirteen and 15-year-old girls in Canada, Spain and Switzerland and 15 year olds in Sweden were also more likely than most others in their age group to indicate that they have little difficulty, but in Hungary, Lithuania, Russia and Spain, boys found it easier to talk to same-gender friends.

Girls obviously found it easier to talk with their female friends than boys did with their male friends. At age 11, only in Spain did substantially more boys (8%) find it easier to talk with their male friends. By age 15, the same proportion of boys as girls in Greenland and Spain could do so, but in no country did the proportion of boys who found it easy to talk with same-gender friends exceed that of the girls.

Figure 6.13 Factors associated with ease of talking to same-gender friends



The proportions of boys and girls in all countries who replied that they found it easy to talk with friends of the same gender rose between age 11 and 15 and, in almost all countries, there was a gradual increase from 11 to 13 to 15 years of age. The greatest increases for boys and girls between age 11 and 15 were in Belgium (Fr.), France, Switzerland and Wales and, for girls, in Denmark and Norway.

Figure 6.14 Students who found it very easy or easy to talk to friends of the same gender* (%)

* Austria and Belgium (Fl.) did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

d. Talking to friends of the opposite gender

Becoming comfortable conversing with friends of the opposite sex is one of the main challenges of adolescence and a sign of growing self-confidence and the development of important social skills. Like finding it easy to talk with same-gender friends, it was associated with sociability and sense of acceptance or belonging (Figure 6.15). However, ease of talking to opposite-gender friends was also associated with drinking to excess and, among older students, smoking. Both males and females were more likely to spend time after school and in the evening with friends. Several studies show adolescent friends are very similar in attitudes and behaviours that are important to teenage culture, such as smoking and drinking (Hartup, 1993).

Boys and girls from all three age groups in the Czech Republic, Estonia and France were the least likely to find it easy to talk to friends of the opposite gender (Figure 6.16). In Hungary and Spain, students in each age group were among the most likely to feel comfortable talking to friends of the other gender. Thirteen and 15 year olds in Canada were also more likely than most other students in their age group to find it easy to talk to opposite-gender friends.

In contrast to the pattern for same-gender friends, boys were more likely to find it easy to talk to female friends than girls were to talk to male friends. However, by age 15, differences were not pronounced. Only in France, Lithuania and Poland did the differences exceed 10 percent. In Denmark this pattern was reversed, as 10 percent more girls than boys found it easy to talk to opposite-gender friends. Most 11-year-old girls tended to be reticent about talking with friends of the opposite sex. By age 15, girls were most likely to report ease in talking to opposite-gender friends in Canada, Spain and Wales.

Students' capacity to talk easily with the opposite gender generally increased steadily from age 11 to 13 to 15, especially in Wales which showed an increase of 38 and 47 percent for males and females, respectively.

Figure 6.15 Factors associated with ease of talking to opposite-gender friends

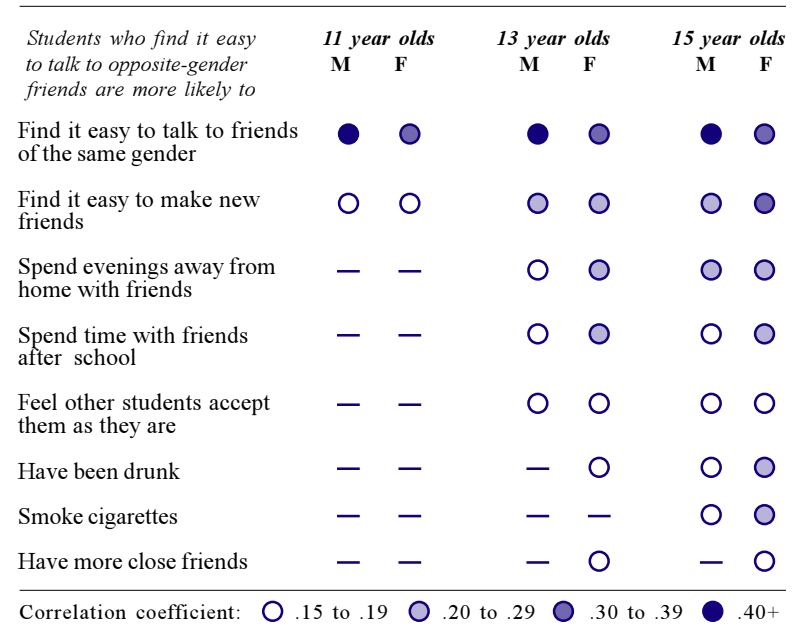
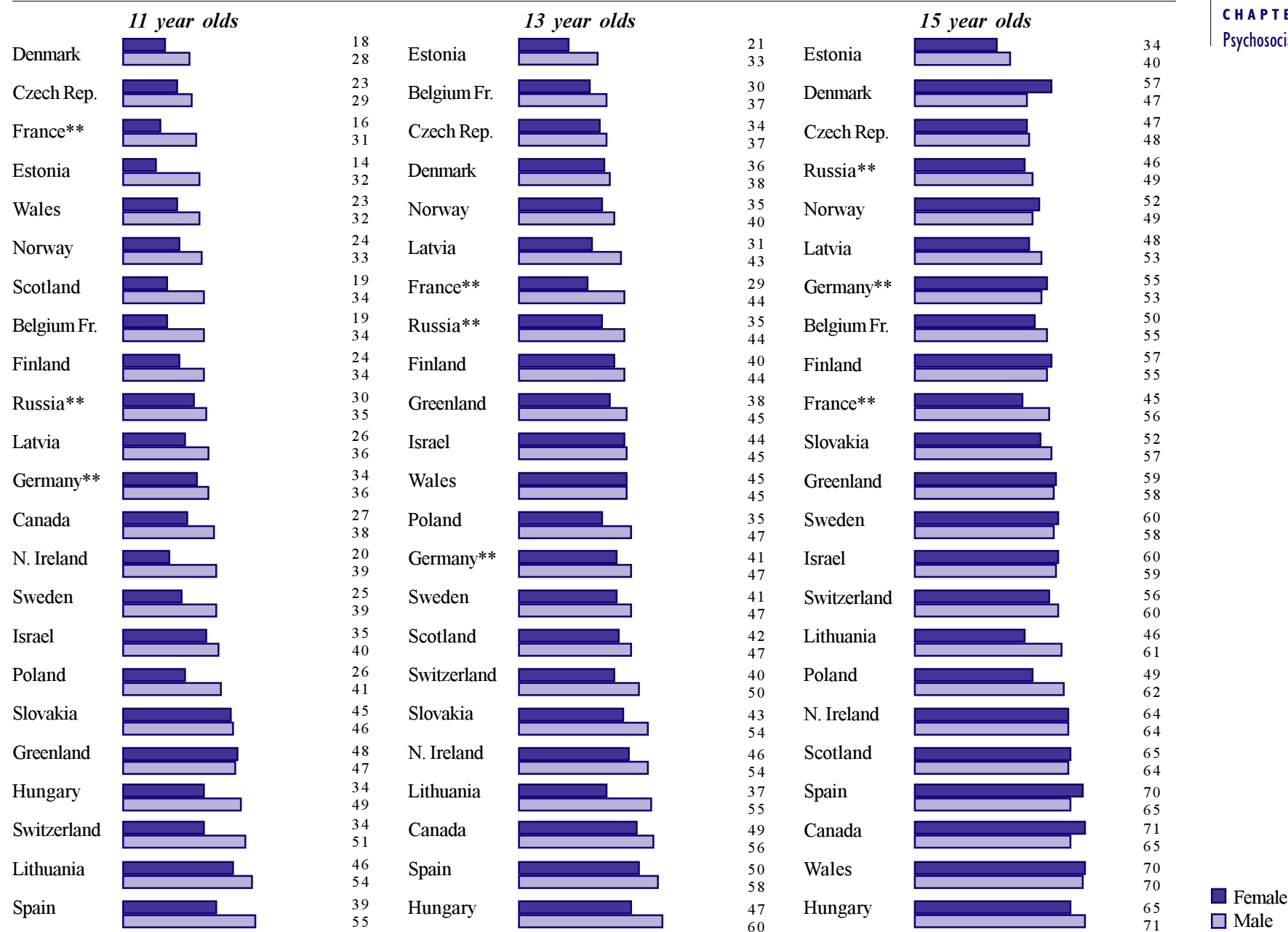


Figure 6.16 Students who found it very easy or easy to talk to friends of the opposite gender* (%)



* Austria and Belgium (Fl.) did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

■ Female
■ Male

2. Time spent with friends

Spending time with friends is a common pastime for young people and the amount of time spent in the company of friends typically increases through adolescence (Larson & Richards, 1991; Brown, 1990). The amount of time young people spend together outside of school time gives an indication of their level of socialization and may indicate whether or not the time they spend with friends interferes with other aspects of their life, such as time with family members and homework. Here, the focus is on those who spend time with friends after school and during the evening most days of the week.

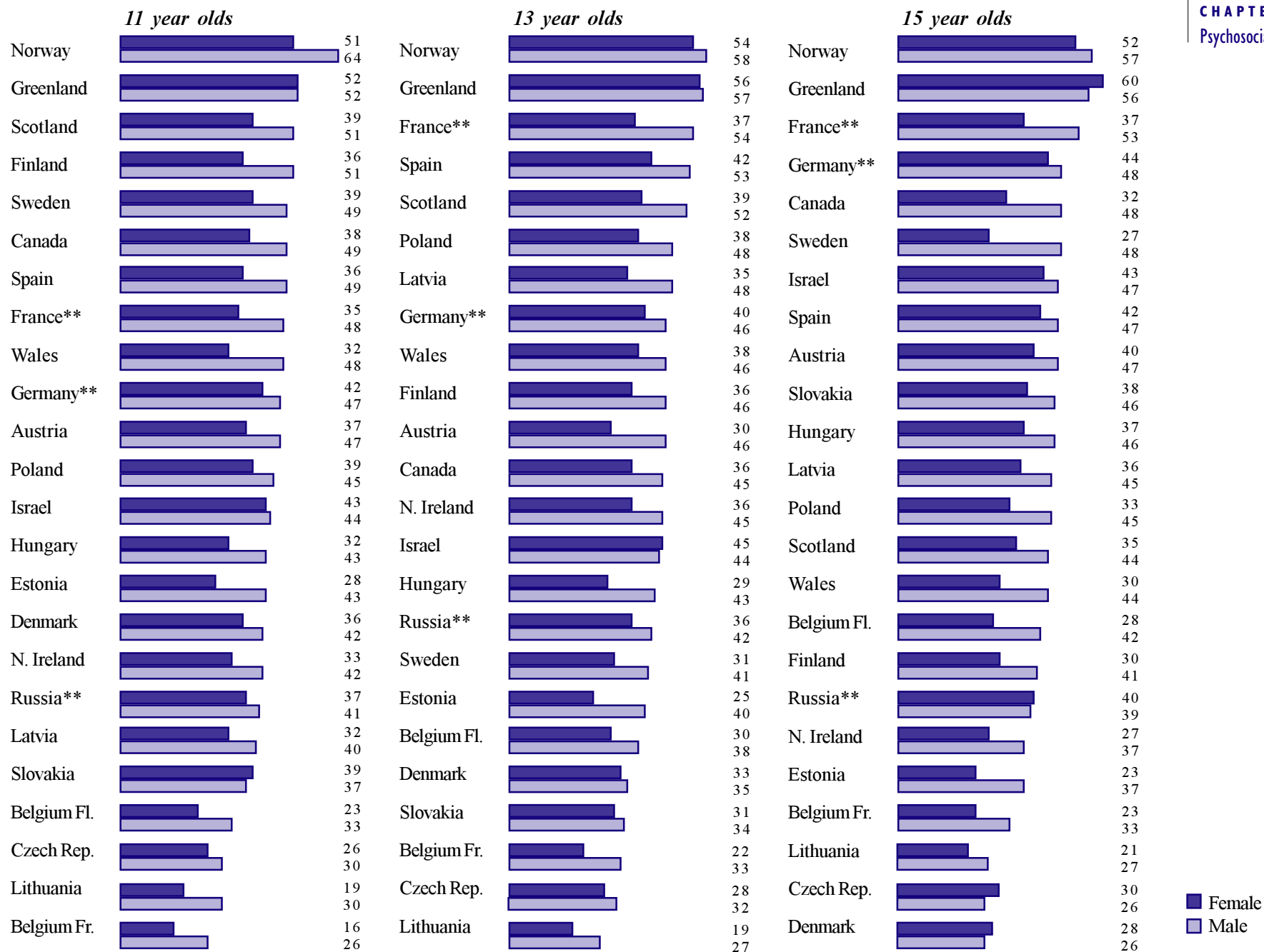
a. Time spent with friends after school

Almost all students surveyed spent time after school with their friends at least once a week. Figure 6.17 shows the proportion of students who spent almost every day – four or five days a week – with their friends after school.

The responses of students in most of the countries are clustered in the 40 to 50 percent range for boys and the 30 to 40 percent range for girls. Over half of students in Greenland and Norway spent time with friends after school most days. Girls in Israel at all three age levels, and 13- and 15-year-old French boys were also highly likely to socialize with friends almost daily after school. The least likely students to spend four or five days a week with friends after school were from Belgium (Fr.), the Czech Republic and Lithuania.

In general, more of the boys than the girls reported spending time with friends after school several days a week. In several countries there is a substantial difference between the responses of girls and those of boys; that is, 10 percent or more boys than girls spent time with friends after school four or five days a week. This occurred across the age groups in Belgium (Fr.), Estonia, Finland, France and Sweden.

Although many students' responses were similar from age to age by country (e.g., Canada, Germany, Israel), there is no consistent pattern. The greatest decrease in response between age 11 and 15 among girls was in Sweden (12% fewer 15 year olds than 11 year olds); in Denmark, 16 percent fewer 15-year-old boys than 11-year-old boys spent four to five days a week with friends after school.

Figure 6.17 Students who spent time with friends after school four or five days a week* (%)

■ Female
■ Male

* Switzerland did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

b. Time spent with friends in the evenings

Again and again in this report it has been noted that a significant amount of time spent with friends in the evenings appears associated with health-risk behaviours. Figure 6.18 summarizes these relationships. While the student who spends a great deal of time with friends was more likely to have good communication skills, he/she was also more likely to smoke and drink to excess. Other relationships involved poor eating habits, watching videos and playing computer games. Parents should be concerned when their teenagers begin to spend a great deal of time with their friends in the evenings.

Figure 6.19 presents the proportions of students in each country who said they spend five or more evenings a week with friends. Some countries stand out as having high proportions of students who reported this behaviour across age groups: Finland, Greenland, Northern Ireland, Norway, Scotland and Wales. Far fewer students in Austria, Belgium (Fr.), the Czech Republic, France, Lithuania and Switzerland reported that they spent five evenings or more a week with friends – fewer than five percent of Belgian (Fr.) students.

Similar to after-school socializing, more boys than girls spent five or more evenings a week with friends in almost every country.

Fifteen year olds were more likely than younger students to spend at least five evenings a week with friends. The largest difference is in Denmark where between ages 11 and 15, 25 percent more girls and 16 percent more boys spent five to seven evenings a week with friends. There were also notable increases in Greenland, Hungary, Latvia, Poland and Slovakia (boys and girls), and in Norway (girls). In Northern Ireland, Scotland and Spain, the responses of both boys and girls actually decreased as age increased.

Figure 6.18 Factors associated with spending evenings away from home with friends

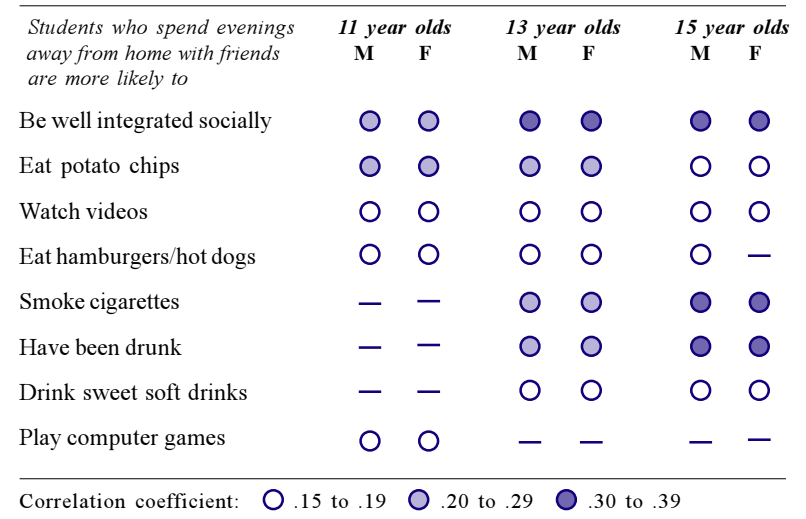
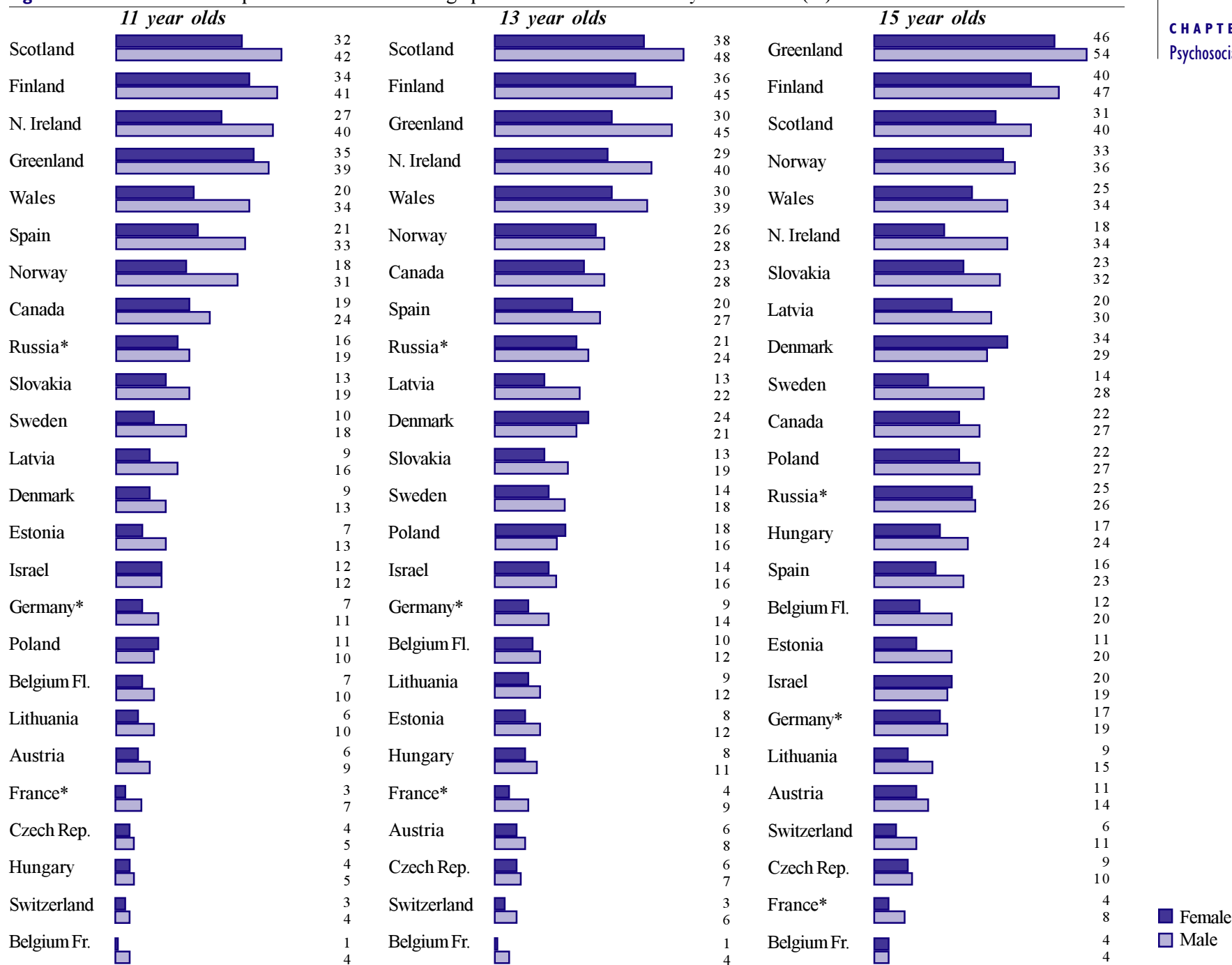


Figure 6.19 Students who spent five to seven evenings per week with friends away from home (%)

* France, Germany and Russia are represented only by regions: see Chapter 1 for details.

■ Female
■ Male

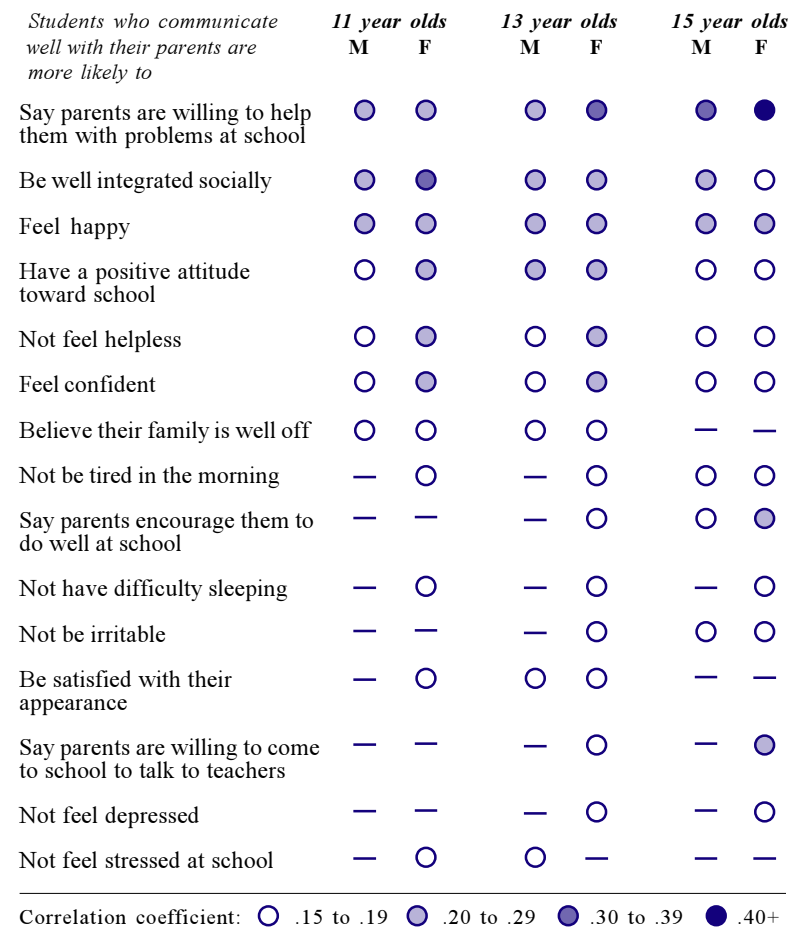
D. Relationship with parents

In studies of adolescents, among the variables shown to be related to positive relationships with parents are higher self-esteem, less depression, lower risk-taking scores (Field et al., 1995; Ryan et al., 1994), greater involvement in school and community activities (Chubb & Fertman, 1992) and better school performance (Ryan et al., 1994). The basis of an effective parent-child relationship is open communication. The quality of the relationship in families where children find it easy to talk with their parents will almost certainly be better than those where children find communicating difficult.

For the items on communication with mother and father, students had four response choices: very easy; easy; difficult; and very difficult. The very easy and easy responses have been combined for this analysis. These data reinforce other researchers' findings that young people tend to find it easier to communicate with their mother (Shulman, 1993).

A parent communication scale was developed that included items related to ease of talking to mother and ease of talking to father. Scale scores were correlated with the other survey items and the results are summarized in Figure 6.20. In comparison with other research, these findings tend to show a similar relationship with attitude toward school and other sound relationships, but not the same associations with risk-taking behaviours. Perhaps the most important factors found to be associated with effective communication with parents were good relationships with peers and satisfaction with school. Poor relationships with parents were associated with loneliness, a lack of confidence, helplessness, irritability, sleep problems and, among girls, depression. For the younger two groups of students, perceived family economic status was associated with effective parent-student relationships.

Figure 6.20 Factors associated with parent-child communication



I. Communicating with mother

The majority of students reported communicating easily with their mother about things that really bother them; the percentage is above 60 for all age groups in all countries and the variation in responses across countries was not great. Across all age groups, more students in Finland, Greenland, Hungary, Israel and Sweden than in other countries said they found it easy to communicate with their mother (Figure 6.21).

Students in Belgium (Fr.) were more likely than all others to find it difficult to talk with their mother. Eleven and 13 year olds in France and the Czech Republic, and 13 and 15 year olds in Canada, also tended to have more trouble than others talking with their mother. Other students who did not find communication easy were from Austria and Northern Ireland.

Gender differences were remarkably small for all three age groups. The proportion of students who found it easy to talk with their mother decreased from age 11 to 15 in every country.

2. Communicating with father

Far fewer students felt they could talk easily with their father about things that really bother them (Figure 6.22) than felt they could do so with their mother. Swedish students were the most likely to find it easy to talk with their father. The responses of students in Finland, Greenland, Hungary, Israel and Lithuania also indicated a high level of ease in child-father communication.

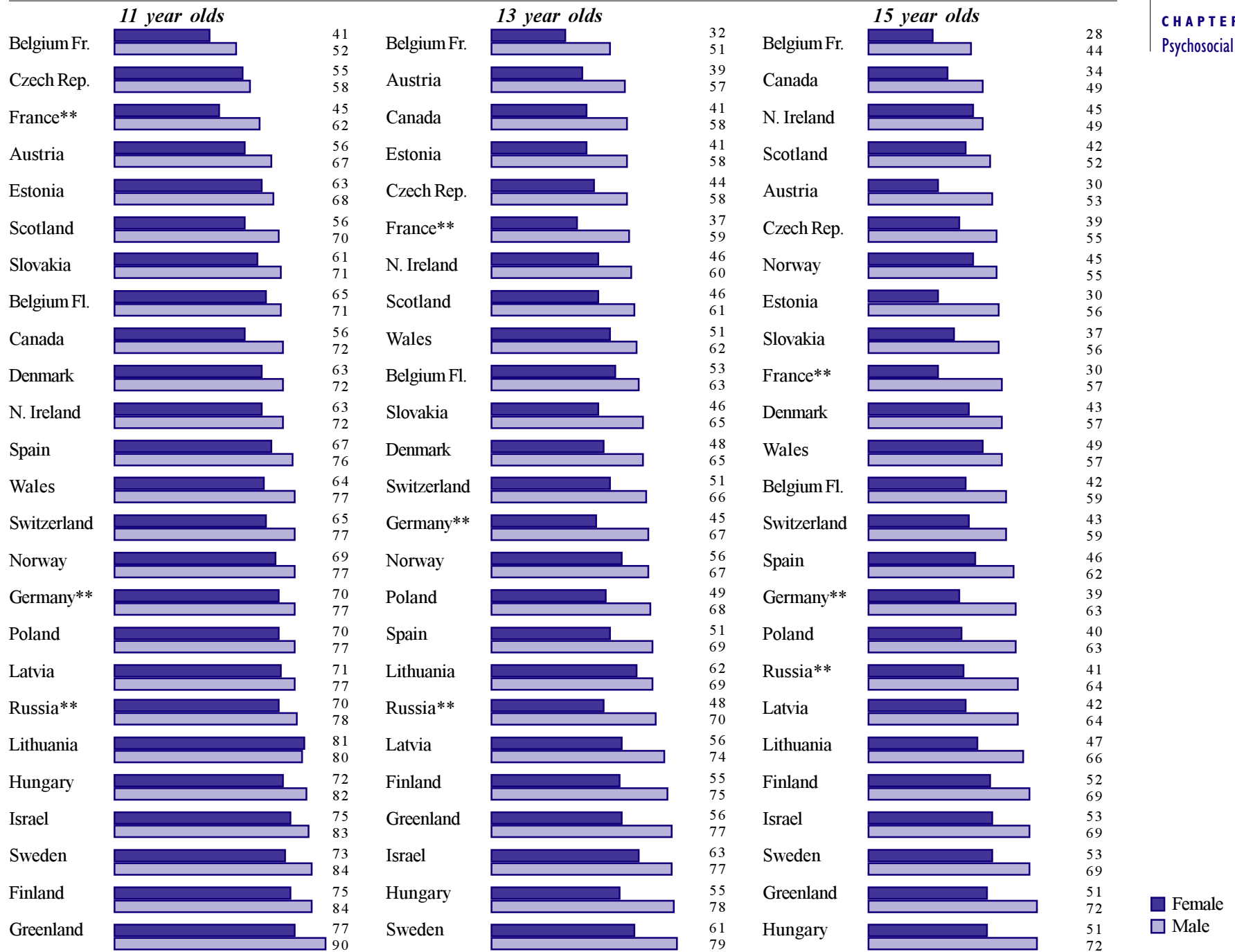
In general, students in Austria, Belgium (Fr.), the Czech Republic and Estonia were less likely to communicate easily with their father. Fifteen year olds in Northern Ireland and Scotland, 11 and 13 year olds in France, and 13 and 15 year olds in Canada were also less likely than many others to do so.

In all countries and at all age levels (with one exception – 11-year-old Lithuanians), boys were more likely than girls to find it easy to talk with their father. There were substantial differences between 15-year-old boys and girls in most countries, with the largest in Estonia (26 percent) and France (27 percent).

The proportion of students who found it easy to talk with their father decreased from age 11 to 13 to 15 in the majority of countries. The proportion of girls decreased at a far higher rate than that of boys from age 11 to 15. In Estonia, for example, there was a 33 percent decrease for girls while that of boys was only 12 percent.

There was some similarity between students' responses to the two parent items. Countries, such as Finland, Sweden, Israel and Hungary, tended to rank high on talking with both mother and father; Belgium (Fr.), the Czech Republic and France were low on both measures.

Figure 6.22 Students who found it very easy or easy to talk to their father about things that really bother them* (%)



■ Female
■ Male

* These figures are based on totals that do not include the response, "Don't have or see this person".

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

E. Summary

There were substantial differences across countries among young people in the areas of mental health and relationships with parents and peers. The majority of students do not describe themselves as very happy. The youngest students tend to have the most optimistic outlook and, in most countries, slightly more boys than girls feel very happy. Younger students are less likely to feel lonely and depressed, and more likely to feel a sense of confidence. Boys are far more likely to feel confident, while girls are more likely to feel lonely, depressed and helpless. It appears that, as children reach their adolescent years, they feel less secure, both psychologically and in their social environment.

Although the majority of students make friends easily and have at least two close friends, the complexities of friendship are clearly difficult for a small minority. These students feel excluded from their peer group. Most of the young people surveyed seem to spend a reasonable number of days and evenings with friends; some, however, spend excessive amounts of time with friends – almost every day after school and every evening. For youth who are seeking recognition and acceptance, the influence of peers can sometimes negate that of parents, particularly with respect to the use of tobacco, alcohol and drugs.

Boys and girls are almost equally likely to find it easy to make new friends and to have two or more close friends. Boys, however, spend far more time than girls with their friends after school and in the evening. The differences in students' responses to peer-relationship items across age groups indicate that social skills develop rapidly from age 11 to 15.

Students are able to communicate more easily with their mother than with their father but some students have difficulty communicating with both parents.

Injuries

Injuries

- A. Introduction**
- B. All injuries**
- C. Severe injuries**
- D. Where injuries occur**
- E. Context of injuries**
- F. Type of injury**
- G. Injury prevention programs**
- H. Summary**

A. Introduction

Injuries are the greatest health problem facing school children in the western world (Harel, 1988; Scheidt, 1988; Committee on Trauma Research, 1985; Gordon, 1949; Wheatly, 1949). The majority of deaths from injury throughout the world are among children and youth; injuries represent the leading cause of death in the first half of the human life span (Barss et al., 1991). Nonfatal injuries account for a large proportion of hospital and school-loss days as well as an unacceptable amount of lifetime disability (Scheidt et al., 1995; Baker et al., 1992; Rodriquez, 1990; Harel, 1988). Although the risk of injury is so great that most people sustain a significant injury at some time during their life, little attention is given to injuries in the research on children's health. The absence of objective information on injuries has inhibited the development and implementation of injury prevention initiatives. This report provides the type of information that can be used to monitor patterns of injury across three age groups.

There is a tendency among the general public to believe that most injuries occur by chance, but in fact the occurrence of injuries is to a great extent determined by the characteristics of the environment in which people live and play and the products they use. Effective prevention strategies are based on an understanding of the circumstances in which injuries can occur and the risk behaviours that cause them (Harel, 1988; Scheidt, 1988; Rivara, 1985). Environmental changes can be made to playing fields, arenas and homes to reduce the risk of injury. Equipment used in play and sport can be adapted to reduce risks. Protective equipment for use in sport can be improved. Supervision and education of young people, especially in school settings, can also reduce the risk of injury. And of course, legislation regarding such things as seat belt use and bicycle helmets can play an important role in prevention.

In this chapter, the types of injuries that require medical treatment are considered, as well as the places they occur and the activities in which those injured are engaged when they are hurt. The use of seat belts as an example of preventive behaviour is also examined.

It is probably advisable to be cautious when comparing injury rates across the participating countries because of a number of factors. The data were collected at different times during the school year across countries (see Chapter 1 for details) and injuries tend to vary by season. There are differences across countries in the availability and utilization of medical services and the extent to which people define an injury as requiring medical attention. Therefore, it is more useful to look at the types of injuries by age group and gender and the situations in which they occur.

Seven items on the survey were directly concerned with injuries. These items were derived from the questions used in several national and international studies on childhood and adolescent injuries (Scheidt et al., 1995; Harel et al., 1994; National Center for Health Statistics, 1989).

Respondents were first asked how many injuries they had incurred during the past 12 months which had been treated by a doctor or a nurse. If students reported an injury, they were asked to respond to six additional questions; if they reported more than one injury, they were asked to answer the same six questions focusing on the most serious injury they had experienced.

The severity of the injury was indicated by two measures: 1) an injury that needed medical treatment such as the placement of a cast, stitches, surgery, or an overnight stay in hospital; and 2) an injury that caused the respondent to miss at least one full day of school or other usual activity.

Respondents named the place where the injury occurred (home, school, sport facility, for example), what they were doing when the injury occurred (riding a bicycle, playing, engaged in a sport), and the type of injury (broken bone, cuts, concussion or other head injury). Respondents also indicated the month of the year in which they were injured.

The injury questions were not used on the survey in the Czech Republic and Germany.

B. All injuries

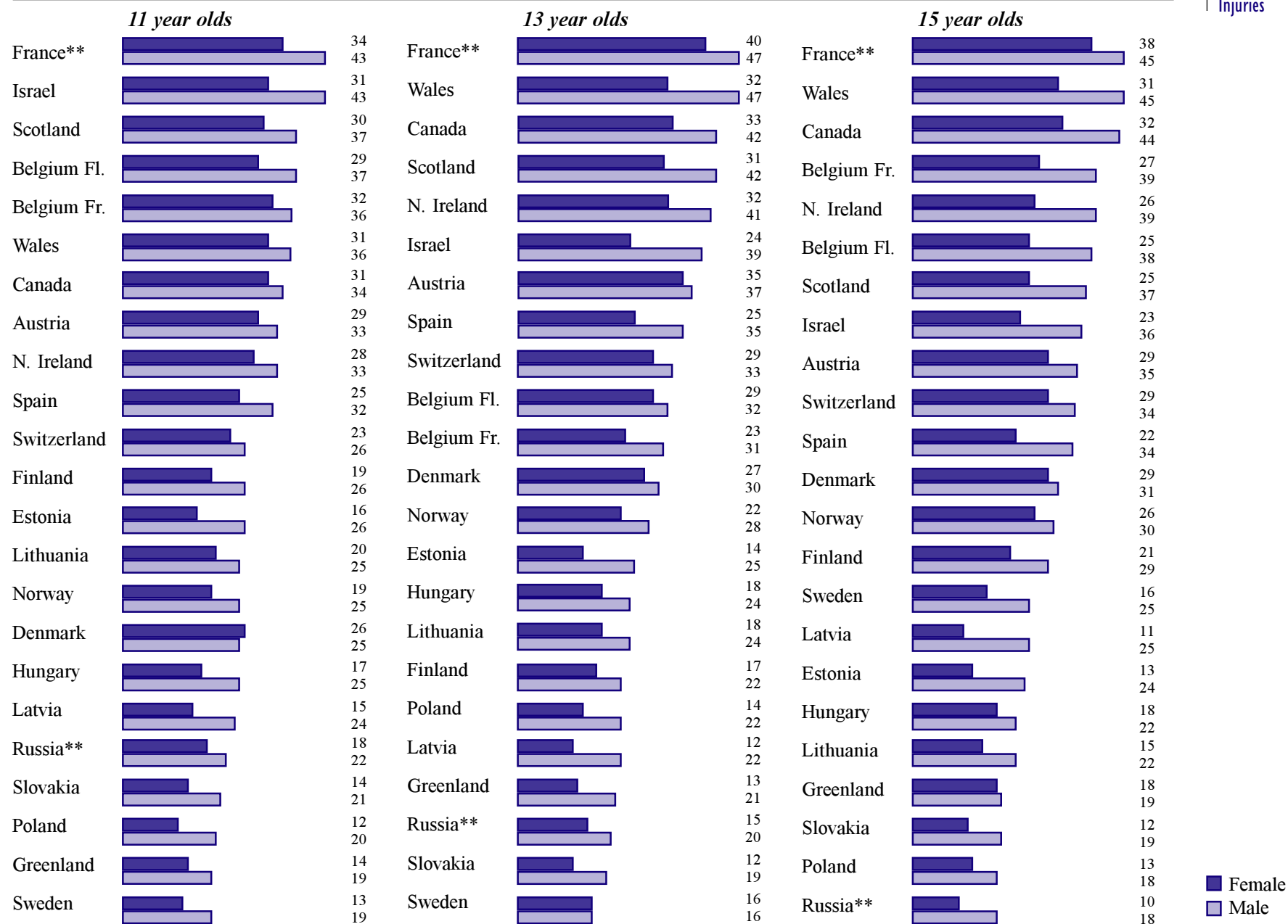
There is very little data describing the characteristics of youth who are more inclined to be involved in accidents. Generally speaking, the concepts of inexperience, risk-taking, sensation-seeking, impulsiveness and drug abuse are used to describe those behaviours that may contribute to injury (Robertson, 1992). A preliminary analysis using aggregated data from this survey yielded correlation coefficients of over 0.15 between alcohol abuse and injury among 13- and 15-year-old boys. Further analyses of these data are underway to investigate psychosocial and behavioural factors associated with injuries among school-aged children in various countries.

Figure 7.1 presents the percentage of youth who reported at least one injury requiring medical attention in the previous 12 months. The figure, therefore, indicates the proportion of students who sustained such an injury and does not represent the total number of injuries requiring medical attention sustained by the respondents during the year before the survey was conducted.

Overall, boys in all countries surveyed reported a higher injury rate than girls. In about half of the countries, over one-third of boys and over one-quarter of girls reported at least one injury during the previous year. The highest rates of injury were among 13- and 15-year-old boys in Canada, France and Wales. In most countries, gender differences are greater among older students surveyed. Denmark is an exception; there, boys and girls in all age groups reported similar rates of injury.

The results also indicate that for all age groups countries such as Canada, France, Scotland and Wales show high injury rates when compared with Greenland, Poland, Russia, Slovakia and Sweden.

Figure 7.1 Students who reported injuries during the past year* (%)



* The Czech Republic and Germany did not include this item.

** France and Russia are represented only by regions: see Chapter 1 for details.

C. Severe injuries

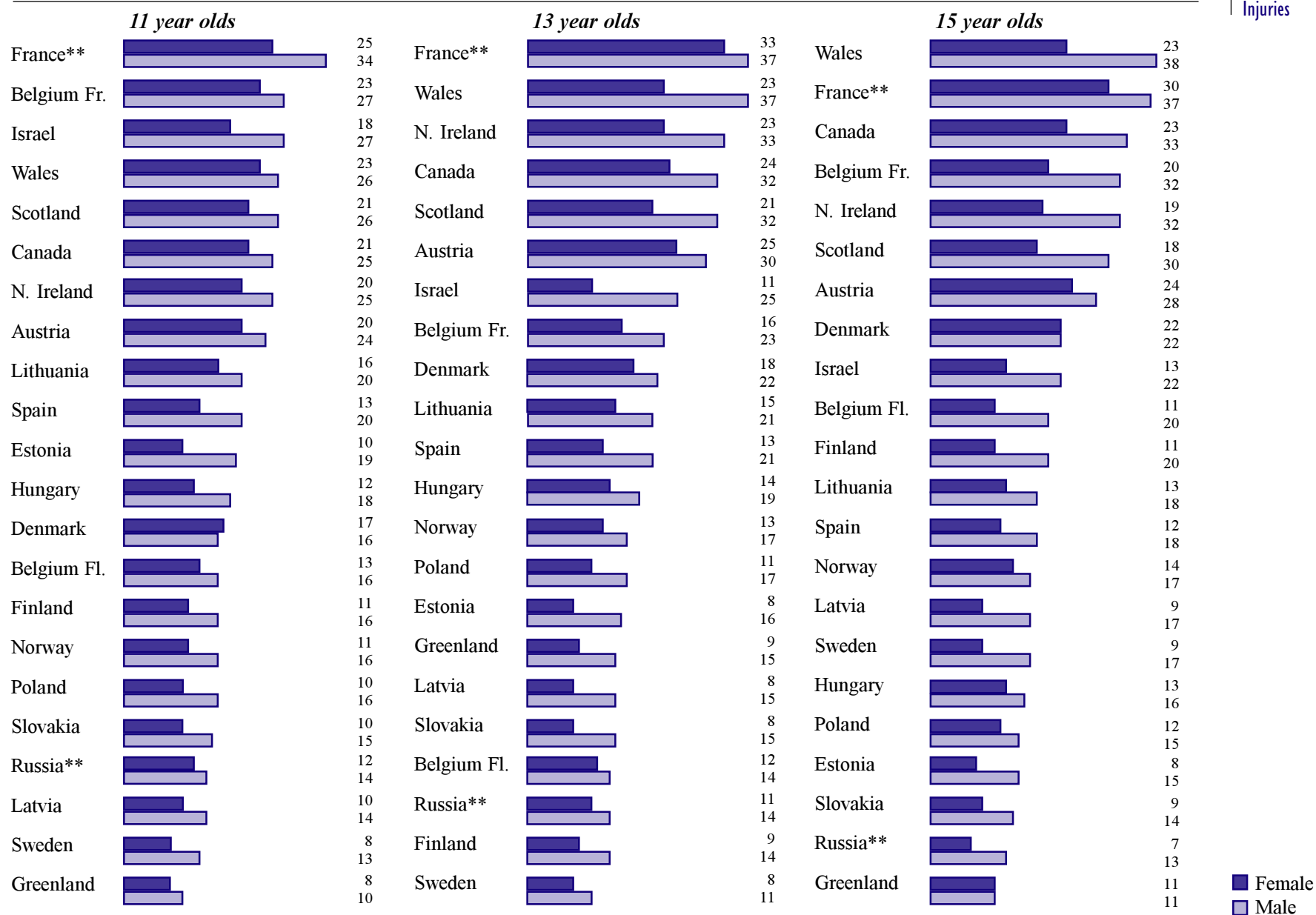
Figure 7.2 presents the proportion of young people who reported a serious injury, i.e., an injury that caused them to miss at least one day of school or required medical procedures such as placement of a cast, stitches, surgery or hospitalization. To give some indication of the magnitude of the database employed in this study, the figure is based on 21,807 injuries from 95,939 total students. In general, about two-thirds of the injuries reported by students in the previous year were classified as severe using these criteria. Severe injury rates for boys ranged from 10 to 38 percent across all age groups,

while severe injury rates for girls ranged from about 7 to 33 percent.

Although these data relate only to severe injuries, the effects of gender, age group and, most notably, cross-national differences are almost identical to the data presented in Figure 7.1. In countries with high injury rates, such as Canada, France, Northern Ireland, Scotland and Wales, more than one of four boys and one of five girls experienced a severe injury during the past year, while among low injury rate countries such as Greenland, Latvia, Poland, Russia and Sweden, fewer than one of five boys and one of seven girls experienced a severe injury.



Figure 7.2 Students who reported severe injuries during the past year* (%)



* The Czech Republic, Germany and Switzerland did not include this item.

** France and Russia are represented only by regions: see Chapter 1 for details.

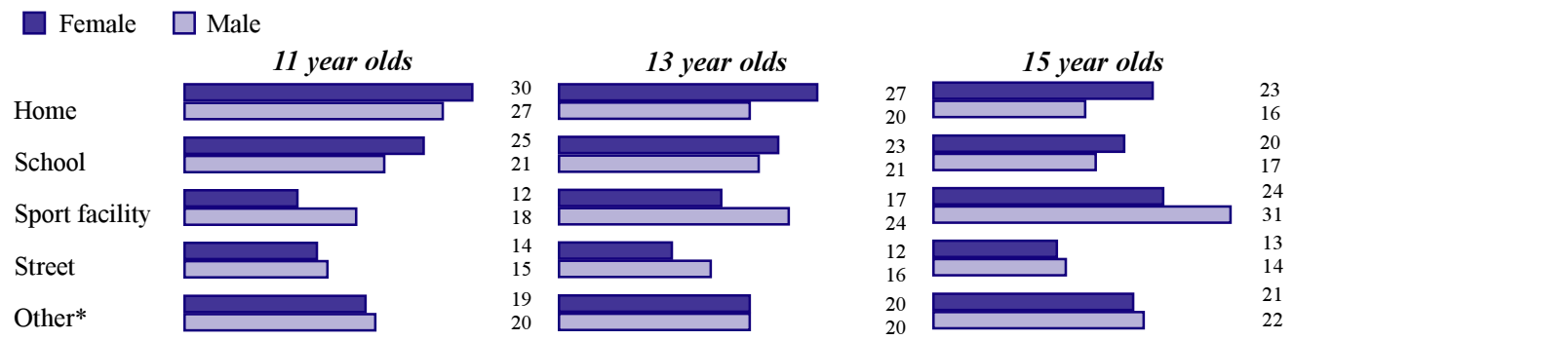
D. Where injuries occur

Identifying where injuries occur is the first step in developing prevention programs. Students were asked where their most serious injury occurred and that information is summarized in Figure 7.3.

A significant shift was evident from age 11 to 15 in the proportion of injuries that took place in each setting. There was a decline in the proportion of injuries occurring in and around the home and an increase in the proportion occurring at sport facilities. The proportion of street-related injuries was similar across genders and age groups. Girls were more likely to be injured at home than boys, but both males and females became less likely over time to be injured at home. The proportion of injuries occurring at school was substantial and was similar for all age groups and genders. The category “Other” in Figure 7.3 included injuries experienced in parks or recreational areas, on a farm or at work.

Injuries at school are presented, by country, in Figure 7.4. The numbers in this figure represent the proportion of young people whose most serious injury during the last 12 months occurred at school. Generally speaking, boys were more likely than girls to have been injured seriously at school in the past year. Israeli 11- and 13-year-old boys and Canadian 15-year-old girls reported the highest proportion of injuries at school. School injury rates were lowest in Greenland, Latvia, Slovakia and Sweden.

Figure 7.3 Place most serious injury occurred (%)



* “Other” was a response choice for this item.

Figure 7.4 Injuries at school* (%)



■ Female
 ■ Male

* The Czech Republic, Germany and Switzerland did not include this item.

** France and Russia are represented only by regions: see Chapter 1 for details.

E. Context of injuries

The second step in developing interventions is to examine the type of activity in which a young person was involved at the time the injury occurred. The activities in which the students were involved when they sustained their most serious injury are presented in Figure 7.5.

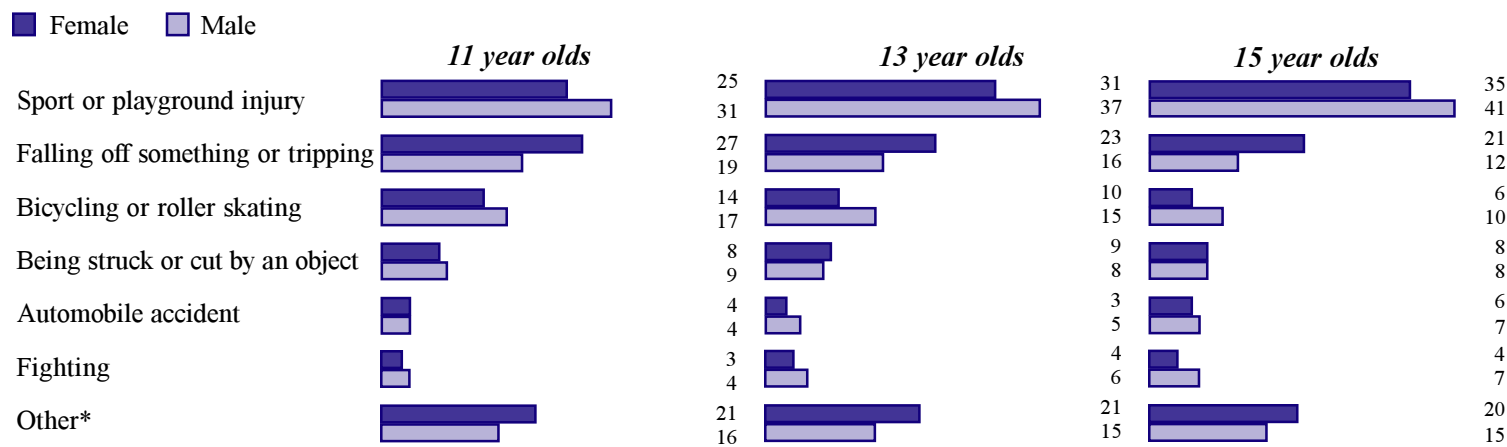
The largest group of injuries occurred during some sporting activity or play. The second largest group of injuries occurred when young people tripped over or fell off something. A number of injuries occurred while students were bicycling or roller skating. The proportion of young people who were injured by an automobile was comparatively small, but still significant and particularly important, because such injuries are more likely to be fatal.

Figure 7.6 presents the proportion of young people who indicated their most serious injury requiring medical attention during the past year occurred while they were participating in a sport. Young athletes are particularly at risk for fractures, cuts and overuse injuries which are in part related to poor training procedures and aggressive attitudes encouraged by adults (Cook & Leit, 1995; American College of

Sport Medicine, 1993; Abraham, 1992; Micheli & Klein, 1991). The figures are surprisingly high for some countries. A quarter of the Welsh and Canadian 15-year-old boys had experienced one such injury. Overall, boys were far more likely than girls to be injured in a sporting event. Countries in which sport-related injuries were least likely to occur include Estonia, Greenland and Lithuania.

Analysis of causes of injuries within each type of environment provides an important insight into the modifiable risk factors that can be addressed to prevent childhood injuries. Figure 7.7 indicates the context of the injuries that occurred in the home, on the street and at school. Over half of injuries occurring at school involved play in sports and playground activities, while a substantial proportion involved being struck, cut or falling. At home the fall/struck/cut category was most prominent. Street-related injuries typically involve bicycles, roller skates and, of course, automobiles, but also include a significant number of falls/being struck by an object, and cuts. Each setting requires its own particular prevention programs.

Figure 7.5 Context of most serious injury (%)



* "Other" was a response choice for this item.

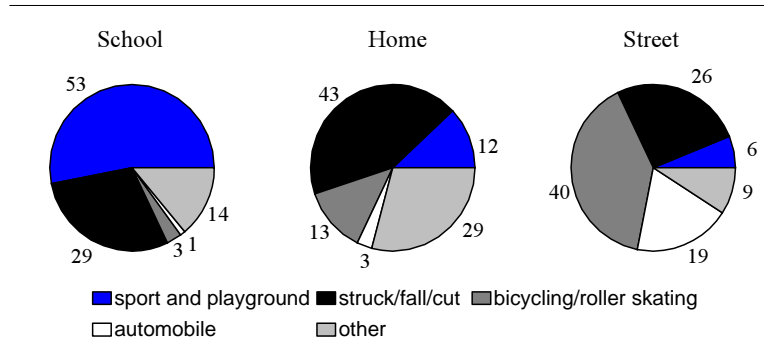
Figure 7.6 Sport injuries* (%)



* The Czech Republic, Germany and Switzerland did not include this item.

** France and Russia are represented only by regions: see Chapter 1 for details.

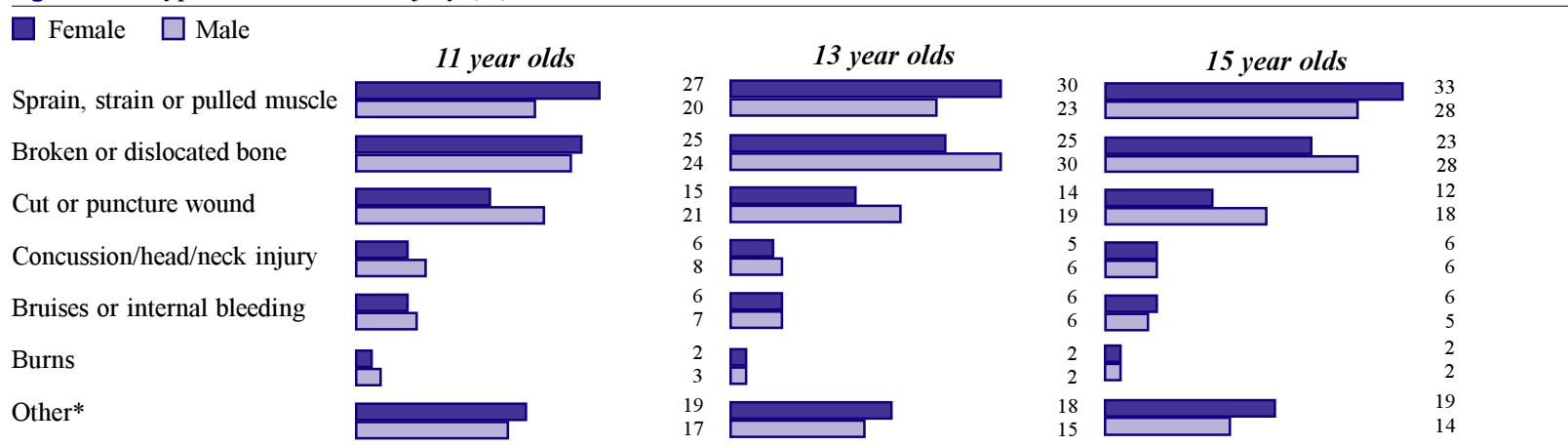
Figure 7.7 School, home, and street injuries, by cause (%)



F. Type of injury

Figure 7.8 summarizes the types of injuries that fall into the most serious injury category. For girls, sprains and strains were the most common while for 11- and 13-year-old boys broken and dislocated bones occurred most often.

Figure 7.8 Type of most serious injury (%)



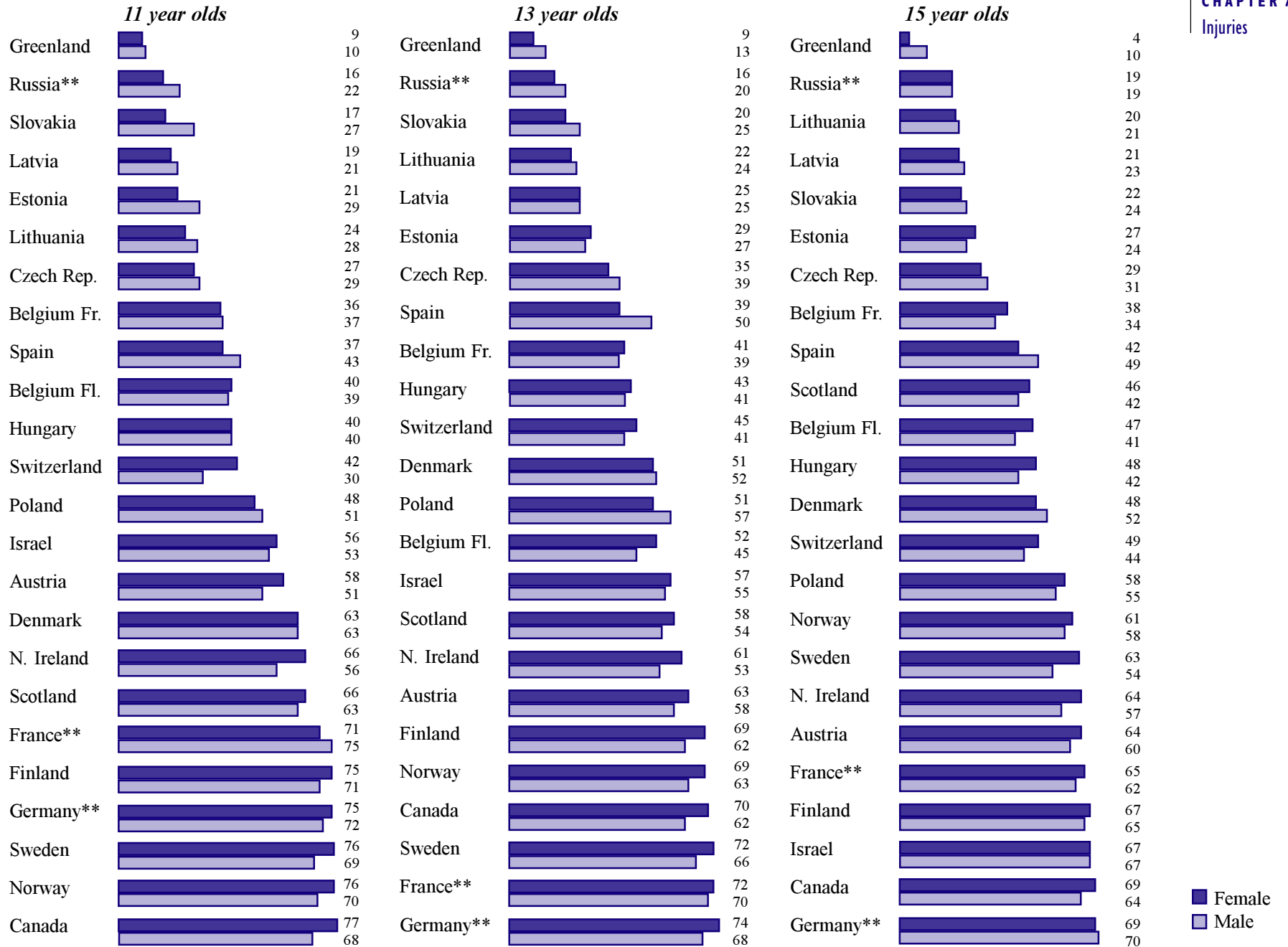
* "Other" was a response choice for this item.

G. Injury prevention programs

There are many prevention programs in place in the various countries in this study. Traffic safety guards and playground supervisors are examples. There is no question that protective equipment acts to reduce the risk of injury both in sport and in play. For example, the use of helmets has been demonstrated to be remarkably effective in reducing head injuries among cyclists (Thompson et al., 1989). An advertising campaign designed to increase the use of bicycle helmets during 1982 to 1985 contributed to a 20 percent reduction in head injuries to bicyclists in Australia (Wood & Milne, 1988).

Another injury prevention program that has been demonstrated to be effective is the legislation requiring both automobile drivers and their passengers to wear seat belts. Many of the countries participating in this study have enacted such legislation but others have not. In some countries, particularly eastern European countries, many automobiles are not equipped with seat belts. The students in the study were asked how often they wore a seat belt when in an automobile and Figure 7.9 summarizes the proportion who said they always wear one. In those countries where using seat belts was the norm, girls were slightly more likely than boys to always wear seat belts. In countries such as Canada, Finland, France and Germany,

Figure 7.9 Students who always used a seat belt * (%)



* Wales did not include this item.

** France, Germany and Russia are represented only by regions: see Chapter 1 for details.

■ Female
■ Male

approximately two-thirds or more of the students in all three age groups said they always wear a seat belt. Students in the eastern European countries of the Czech Republic, Estonia, Latvia, Lithuania, Russia and Slovakia were far less likely to always wear a seat belt and very few Greenlandic youth use a seatbelt when in a vehicle.

H. Summary

This chapter presents an overview of the incidence of nonfatal injuries in school-aged children. In all countries, injury rates are sufficiently great to indicate a serious health problem requiring prevention initiatives. Boys tend to be injured more frequently than girls, yet, among girls, injury rates are also substantial. About two-thirds of all injuries requiring contact with a doctor or nurse result in one or more days lost from school or in a medical procedure such as the placement of a cast, stitches, surgery or hospitalization. Over 40 percent of all injuries occur in school or at home, two environments that can be directly targeted for intervention. Injuries most frequently occur during sport and playground activities, and when young people fall and are struck or cut by objects.

If the school systems in the participating countries can develop effective prevention strategies aimed at (a) reducing sport and playground activity-related injuries, and (b) improving the safety of school environments, then 80 percent of all school injuries will be addressed by primary prevention intervention. Also, schools can be used as a vehicle to provide safety education designed to reduce injuries that occur outside the school environment. As to home injuries, a community-based approach to enhance the safety of the home environment to prevent falls and cuts might be an effective strategy to address adolescent home injuries.

The sport injury literature includes many suggestions for prevention programs that address specific types of sport activities (for example, wearing protective clothing) or more general approaches (for example, multi-cause community intervention programs) that address a wider spectrum of activities. Greater use of seat belts is clearly needed in some countries. Not only legislative support, but making sure vehicles have the necessary equipment is fundamental.