<table>
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<tr>
<th>Programme’s name</th>
<th>MASS intervention</th>
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<td>Original title:</td>
<td>The intervention ‘Medical Advice for Sick-reported Students’, acronym MASS (In Dutch: ‘Medische Advisering van de Ziekgemelde Leerling’, acronym M@ZL)</td>
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<table>
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<th>Summary:</th>
<th>The complexity of dropout</th>
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<td>- The MASS intervention acknowledges the complex relation between different, potentially interconnected reasons for school dropout, which are hard to properly identify.</td>
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<td>- The intervention considers a strong link between a young person’s individual health and his educational performance and attainment: Substantial school absenteeism negatively affects students’ social and emotional development, and causes students’ educational development to stagnate, which may lead to moving down to a lower level of education or even early school dropout. The impact of school absenteeism due to sickness reporting, so-called school absenteeism, can be explained by the consequences of the absence itself and by the direct influence of suboptimal health on school results and personal development.</td>
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<td>School absenteeism must not only be seen as a problem for education but also as a serious problem for other sectors, including (public) health care:</td>
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• Looked at from a life-time perspective, both health problems and lesser educational achievement in youth may be followed by a lower socioeconomic status in adulthood. Such a lower socioeconomic status may in turn cause a transgenerational transmission of less favourable health which in turn may cause a downward spiral. It is to be expected that such a downward spiral can be avoided by adequately addressing medical absenteeism, and consequently creating optimal educational opportunities and health for young people. This may contribute to driving back socioeconomic health differences.

Principles of the MASS intervention
The MASS intervention aims to address school absenteeism due to sickness reporting, so-called medical absenteeism, and consists of an integrated and personalized approach in which school personnel and youth health care physicians (YHCPs) play a major role. MASS provides a clear framework in which school personnel, in direct collaboration with YHCPs, is able to reach students and their parents, discuss aspects of the student’s medical absence, and design and monitor a management plan that aims to optimize students’ health and maximize their participation in school activities.

In summary, the aim of the MASS intervention is to limit the absenteeism by arranging appropriate care, educational adjustments and adequate support for students and parents. A systematic routine is followed:

Step 1 School’s policy
The school communicates with students and parents about the new policy in case of absenteeism because of medical reasons.

Step 2 Referral to the YHCP
Students with extensive medical absence are identified by school by using well-defined threshold criteria: reported sick four times in 12 school weeks or more than six consecutive school days (MASS-criteria). Meeting the criteria always leads to a referral to the YHCP for student and parents.

Step 3 Consultation of student and parents with the YHCP
During the interview and medical assessment YHCPs look for biological, psychological and social factors that contribute to the students’ medical absenteeism. The YHCP identifies whether there is a specific somatic or psychiatric diagnosis to account for the absence. If the diagnosis is clear the focus will be on optimizing the (adherence to) treatment. In cases of frequent physical complaints and psychosocial problems with no clear medical diagnosis, the YHCP considers diagnostics, and looks for family and school related factors, as well as health risk behaviours and lifestyle aspects that contribute to the physical complaints and psychosocial problems. If needed, the YHCP refers to a medical specialist or a psychosocial support network. A management plan is then designed together with student, parents and school, and with curative professionals, if applicable. This plan includes agreements on cure, care and school attendance.

**Step 4 Monitoring the management plan**
School and YHCP monitor the execution of the management plan.

**Implementation and dissemination challenges for the MASS intervention**

**To improve adoption:**
Schools’ initial reasons for implementing MASS relate to the well-being of individual students. Schools recognize that MASS also ensures the improvement of parental involvement in school, better quality of care for students, and an increased number of students that graduate. These factors can put the subject of addressing medical absenteeism on schools’ agendas, thereby supporting adoption and securing sustainable implementation and dissemination of MASS.

**To improve implementation:**
Adequate communication about the purpose of the intervention and the training of teachers in entering into dialogue about the absence with students and parents are preconditions for successful implementation.

**To improve dissemination:**
The policy climate provides a foundation without which change will not be sustainable. An educational policy focus on the prevention of early school dropout, and on inclusion of students with disabilities and special education needs in general schools (‘Inclusive Education’) will contribute to putting medical absenteeism on schools’ agendas. The current youth (health) care policy climate (in the Netherlands) with a focus on more preventive care (‘Transforming Youth Care’) will put medical absenteeism on the agendas of (public) health care and municipalities. Together these two policies may be expected to contribute to a sustainable and widespread dissemination of the MASS intervention.

Cases in schools with M@ZL intervention
The programme facilitators are convinced that schools with M@ZL intervention allow for a more tailored response to the young person’s needs. Short case descriptions on the effects are available upon request.

Issues:
Quotes from interviewed students:
Quotes from interviewed students hint at different issues with the programme
- Lack of information and awareness gaps: “I did not know what to expect from the consultation.”
- Gaps in availability and accessibility of services in schools: “It is not fun to be ill. This appointment helps me to stay healthy. None at school ever talked with me about this. I think for other students it is also good to have an appointment if they are ill.”
- “I find it important to talk with someone about my well-being.”

Resources:
It is to be expected that about 10 percent of all students will meet the MASS criteria per school year, and that only one in five students will be sent to a YHCP. The consultations with the YHCP have to be paid. The expected time needed is two hours per student. In conclusion, about 2 percent of all students will have a consultation with the YHCP, who needs two hours per student.

Objectives:
- Addressing school absenteeism due to sickness reporting (so-called medical absenteeism)

Outcomes:
Concluding remarks
1. Student's absence from school shows a student at risk.
2. The great diversity of students’ health condition calls for a personalized approach and the use of a biopsychosocial perspective that includes medical expertise.

3. Through a joint effort of school staff and YHCPs, students and parents, the educational and health outcomes of these students can be optimized, leading to a diminished volume of medical absenteeism.

4. We are all responsible for addressing school absenteeism for health reasons.

**Evaluation:**

**Quantitative study on the MASS intervention and its effectiveness**

**Method:** A quasi-experimental design with an intervention group and a control group was applied. Multilevel analysis was used to study differences in the development of the level of a student’s medical absence over time (after 3 and 12 months).

**Results:** In the intervention group, the level of absenteeism decreased from 8.5 days reported sick in 12 school weeks to 5.7 days after 3 months, and to 4.9 days after 12 months. The number of absence periods fell from 3.9 in 12 school weeks to 2.5 after 3 months, and to 2.2 after 12 months. In the control group, the absence days initially decreased from 10.4 to 9 in 12 school weeks, after which an increase to 9.3 was measured. The number of absence periods initially decreased from 4.4 to 3.4, after which an increase to 3.7 was measured. The number of absence days per period remained about the same in both groups.

**Conclusion:** The MASS intervention appears to be effective for Dutch pre-vocational secondary students with increased absence rates: systematic identification of students with extensive medical absenteeism by using the MASS-criteria, followed by consistent referral to YHCPs who design and monitor a management plan that aims to optimize students’ health and maximize students’ participation in school activities and that is being monitored, is more effective than ‘care-as-usual’. Therefore, MASS seems to be a promising approach for addressing medical absenteeism. Personalized management of medical absenteeism by systematic identification of students with
extensive medical absenteeism, and consistent referral to youth health care physicians, is more effective than 'care-as-usual'. The difference between aspects of medical absenteeism in number of absence periods and days per period is important for understanding that the effectiveness of the intervention is shown primarily by a decrease in the number of periods reported sick.