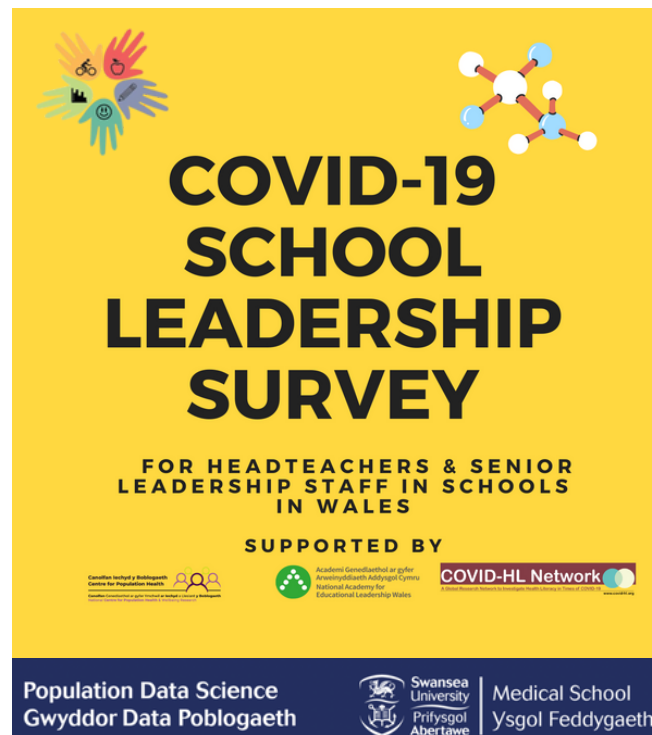


COVID-19 School Leadership Study Full Report: Wales

2022



PREPARED BY
Dr Emily Marchant, Swansea University

Contents

1	<u>Preface</u>
2	<u>Introduction</u>
3	<u>COVID-19 School Leadership Survey</u>
4	<u>At a glance</u>
5	<u>Results summary: Well-being and work situation during Covid-19</u>
6	<u>Results summary: School health promotion and health literacy</u>
7	<u>Recommendations</u>
8	<u>Well-being and mental health of school leaders</u>
9-10	<u>Sense of Coherence</u>
11	<u>Perceived stress</u>
12	<u>Intensity of work</u>
13	<u>Extent of work</u>
14	<u>Quality of work</u>
15	<u>Exhaustion</u>
16	<u>Health information in the context of Covid-19</u>
17	<u>Covid-19 health literacy</u>
18	<u>Covid-19 health literacy: Accessing information</u>
19	<u>Covid-19 health literacy: Understanding information</u>
20	<u>Covid-19 health literacy: Appraising information</u>
21	<u>Covid-19 health literacy: Applying information</u>
22	<u>Perceived health needs of pupils</u>
23	<u>Perceived health needs of staff</u>
24	<u>School health promotion and prevention: Teaching & learning</u>
25	<u>School health promotion and prevention: Staff support & training</u>
26	<u>School health promotion and prevention: Involving others in planning, prioritising stress-related issues</u>
27	<u>Further information</u>
28	<u>References</u>

Preface

National Academy for Educational Leadership Wales



Academi Genedlaethol ar gyfer
Arweinyddiaeth Addysgol Cymru
National Academy for
Educational Leadership Wales

The National Mission for Wales sets out four key enabling objectives including; The development of a high-quality education profession, Inspirational leaders working collaboratively to raise standards, and Strong and inclusive schools committed to excellence, equity and well-being. The National Academy for Educational Leadership Wales has a key function in realising these by ensuring the well-being of leaders is prioritised and systematically supported, creating a sustainable and resilient leadership workforce capable of being a key driver of lasting, systemic change.

The National Academy for Educational Leadership Wales welcomes a professional relationship with Swansea University to further support and explore the well-being of educational leaders in Wales. Collaborating with Dr Emily Marchant and Swansea University on the Covid-19 School Leadership study, the analysis of the responses and dissemination of the findings will provide an evidence base on which we can inform the sector, shape Welsh Government policy and directly address the well-being experiences of leaders in the education system. This report is central to highlighting the significant impact the pandemic has had on specific aspects of school leaders' physical and mental health, allowing the system to respond with a targeted approach and appropriate resources.

We look forward to a continued partnership with Dr Emily Marchant and Swansea University, working towards implementing the recommendations from this report as part of The Leadership Academy's ongoing strategic approach to addressing the well-being of leaders as well as tackling the issue of recruitment and retention within the education sector in Wales.

Nia Miles, National Academy for Educational Leadership Wales

Introduction



The COVID-19 pandemic caused far-reaching changes in society and required individuals, settings and systems to rapidly adapt to meet the demands of an unprecedented public health emergency. Whilst research has demonstrated the wide ranging impact of school closures on pupils' health and well-being (James et al., 2021), learning and development and challenges for teaching and support staff (Marchant et al., 2021), there is a gap in evidence exploring the effects of the pandemic on headteachers and senior leadership figures within schools.

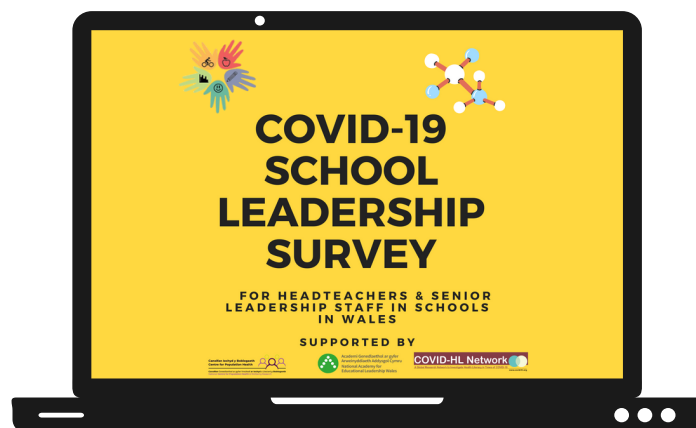
This is important because headteachers and senior school leaders have been exposed to a whole new working situation and environment, requiring decision-making and leadership relating to the numerous challenges they have had to master and manage. These headteachers and senior school leaders are responsible for all aspects of school life and therefore have had to cope with particularly high demands as a result of the COVID-19 pandemic.

A report commissioned by the National Academy for Educational Leadership discusses the "*potential crisis in leadership in education*" (Davies, 2022) relating to the recruitment and retention of headteachers, and the important role that senior leader well-being can play in avoiding this. Therefore, this research is important to examine the well-being, work-related stress and situation facing senior leaders in Wales to inform strategies moving forward, and comparing with international data through the COVID-19 Health Literacy (COVID-HL) network, lead by Professor Kevin Dadaczynski (Fulda University of Applied Sciences, Germany) and Professor Orkan Okan (Technical University of Munich, Germany).

We have developed five recommendations based on the findings of this survey aimed to inform research, policy and practice to promote and protect the well-being of senior leaders across Wales.

Dr Emily Marchant, Swansea University

COVID-19 School Leadership Survey



The COVID-19 School Leadership Survey aimed to explore the burden and stress that UK school headteachers and senior leadership staff (e.g. deputy headteachers) experience in relation to the COVID-19 pandemic. This study is supported by the National Academy for Educational Leadership and is part of a wider international study through the COVID-HL consortium (<https://covid-hl.eu/>).

The COVID-19 School Leadership Survey was developed by the COVID-19 Health Literacy network (Dadaczynski et al., 2021) and was rolled out in over 30 countries worldwide. We translated the survey to English and piloted the survey with headteachers to ensure readability, before wider rollout throughout Wales and Northern Ireland.

In Wales, the survey was open from June to November 2021. This report shares the results of over 170 senior school leaders across Wales who participated in the survey.

We would like to thank the senior leaders for their participation in the survey, and Professor Dadaczynski and Professor Okan who lead the COVID-HL network for their invitation to be part of this international study.



Further information

HAPPEN network: www.happen-wales.co.uk

COVID-HL network: www.covid-hl.eu

At a glance: COVID-19 School Leadership Study

Number of senior school
leaders participated

172
63% female

Primary schools

130

Secondary schools

30

Local authorities

20

Welsh medium

14%

79% Headteacher

8% Deputy
Headteacher

13% Senior
Leadership

Results summary

Well-being and work situation during Covid-19

Well-being

Senior school leaders vs UK adults Depression cutpoint

44.9 vs **69.6** **54%**

Perceived stress

Low Moderate High

17% **73%** **10%**

Pace of work during Covid-19

Often/very often

Burdensome **65%**

Know is not good for them **75%**

Cannot be sustained in the long term **74%**

Sense of Coherence

managing stressful situations to maintain health and well-being

Score out of 7

Comprehensibility
perceived work situation as structured, consistent and coherent **3.8**

Manageability
availability of resources to cope with working demands **3.5**

Meaningfulness
perceived work situation as worthy of commitment and involvement **5.1**

Work during Covid-19

Often/very often

Given up leisure activities in favour of work **72%**

Given up sleep to complete work **58%**

Worked extra hours e.g. weekends, holidays **93%**

Work exhaustion during Covid-19

Often/always

Felt physically exhausted **38%**

Felt mentally exhausted **57%**

Results summary

School health promotion and health literacy

Most important

Least important

1

2

3

4

5

6

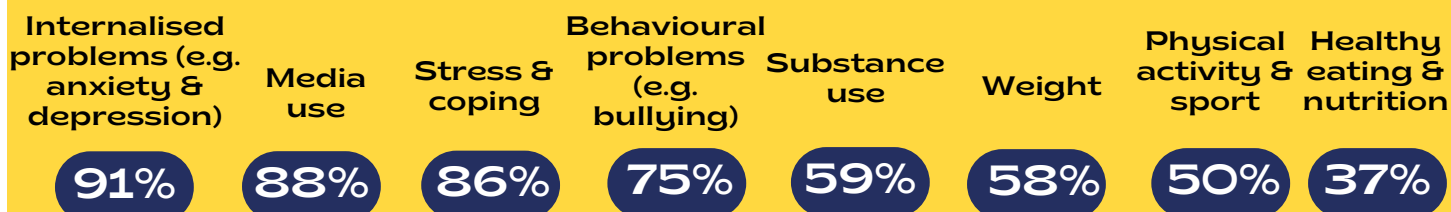
7

8

Most important perceived health needs of PRIMARY school pupils (high/very high importance)



Most important perceived health needs of SECONDARY school pupils (high/very high importance)



Most important perceived health needs of STAFF (high/very high importance)



Senior leaders have sufficient health literacy regarding accessing, understanding, appraising and applying information relevant to Covid-19

Recommendations

1

A more strategic approach to supporting the well-being of educational leaders in Wales is needed. This includes joint working between the health and education sectors to provide mental health support to senior leaders.

2

In the short-term, the mental well-being supports currently available from both the education and health sectors should be highlighted to senior school leaders.

3

Further research into what mental health supports are needed at individual, organisational and systems level to support senior leaders in their role is needed.

4

Greater clarity on the extent and quality of leadership development provision to specifically support leaders' well-being is needed.

5

Further research charting changes over time in leaders' experience of their well-being can contribute to strengthening the evidence base in this area.

Well-being and mental health

Using the World Health Organisation's Five Well-being index (WHO-5), we examined the mental well-being of senior school leaders. Higher scores represent higher well-being, and the WHO-5 has also been validated as a screening tool for depression (Topp et al. 2015).

Mean WHO-5 score
(higher score represents higher well-being)

Senior school leaders

UK adults

44.9

69.6

Male

Female

47.0

43.7

Below cut-off indicating depression

54%

Male

Female

48%

56%

The mean WHO-5 score of 44.7 (s.d. 21.8) in this sample of senior school leaders is considerably lower than scores for UK adults reported in a study conducted during the initial lockdown (March to April 2020) (White and Van Der Boor 2020), suggesting lower well-being among senior school leaders in Wales. Female senior leaders had a lower mean WHO-5 score indicating lower well-being. Over 50% of school leaders in this study were categorised as having depression, and a larger proportion of females were categorised as having depression (56% vs 48%) during the study period.

Sense of Coherence

Current work situation

We asked senior school leaders to rate how they were finding their current work situation to examine Sense of Coherence (SoC). SoC is a framework which explains how people manage stressful situations to maintain their health and well-being. Work context specific SoC is defined as an individual's perception of their work as comprehensible, manageable and meaningful (Vogt et al. 2013):

- **Comprehensibility:** how an individual perceives their work situation as structured, consistent and coherent, as opposed to unpredictable and chaotic
- **Manageability:** how an individual perceives the availability of resources to cope with demands in the workplace
- **Meaningfulness:** the extent to which a person perceives their work situation as worthy of commitment and involvement

Work-related SoC is used as an indicator for the health-promoting quality of life at work. Research suggests people with a higher SoC are healthier than those with a weak SoC (Eriksson and Lindström 2006), and higher work-related SoC is associated with fewer psychosomatic symptoms, less emotional exhaustion and coping more efficiently with work stressors.

We used a nine item scale to measure the work-related SoC in senior leaders in Wales (see page 6).

On average, senior leaders reported moderate levels of comprehensibility; a work situation during Covid-19 that is structured, consistent and coherent, and manageability; the resources available to cope with the demands of work during Covid-19. Interestingly, meaningfulness was scored the highest of the three sub-scales, suggesting that despite the work-related challenges brought on by the pandemic, senior leaders in Wales still perceived their role and work situation as meaningful and worthy of their commitment and involvement.

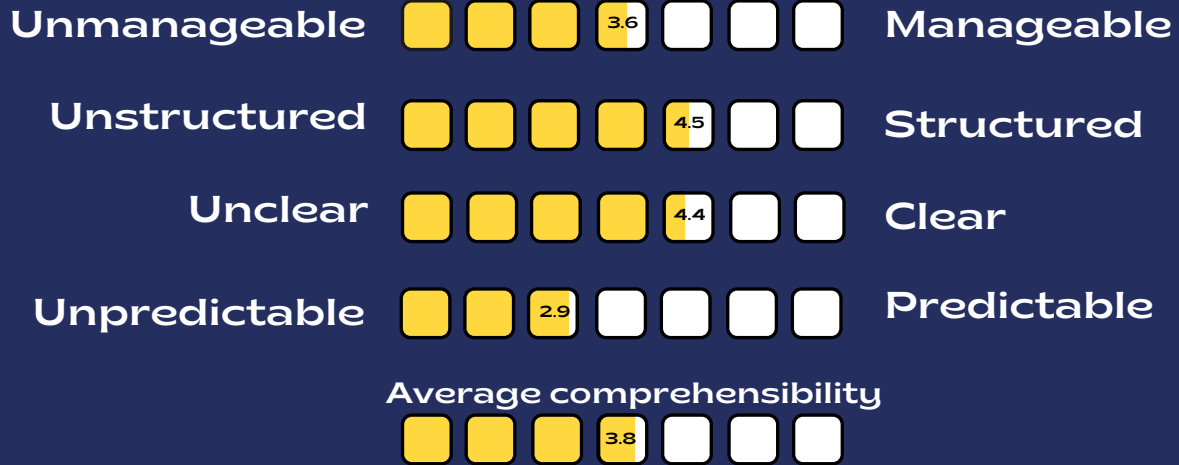
In order to protect the health and well-being of senior school leaders, a focus should be placed on preventative programmes to enhance the resources available for senior leaders in coping with work-related demands and stressors.

Sense of Coherence

Current work situation

Lower SoC ← (mean scores) → Higher SoC

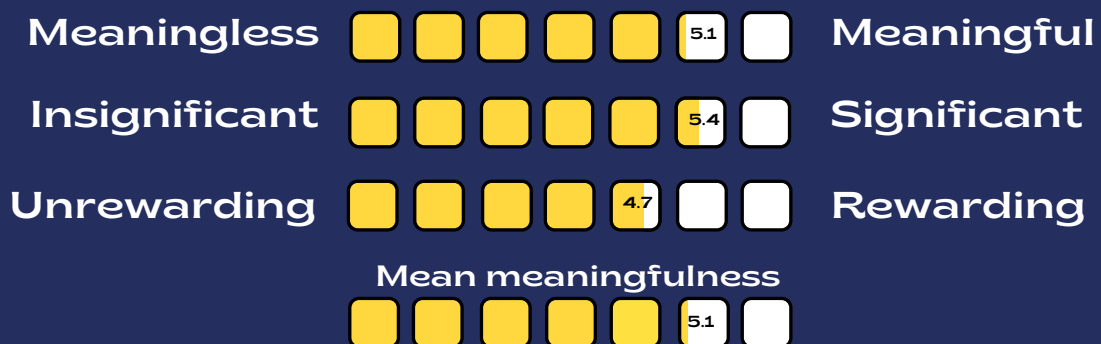
Comprehensibility



Manageability



Meaningfulness



Perceived stress

Current work situation

We used the *Perceived Stress Scale* (Cohen et al. 1983) to find out the thoughts and feelings of senior leaders regarding their work during the COVID-19 pandemic. Subjective feelings of stress occurs when situations are perceived as threatening and the demands exceed an individual's coping resource. Stress is highly correlated with physical and mental health outcomes (Cohen et al. 2019).

Perceived stress

Low

17%

Male

22%

Female

14%

Moderate

73%

Male

68%

Female

73%

High

10%

Male

8%

Female

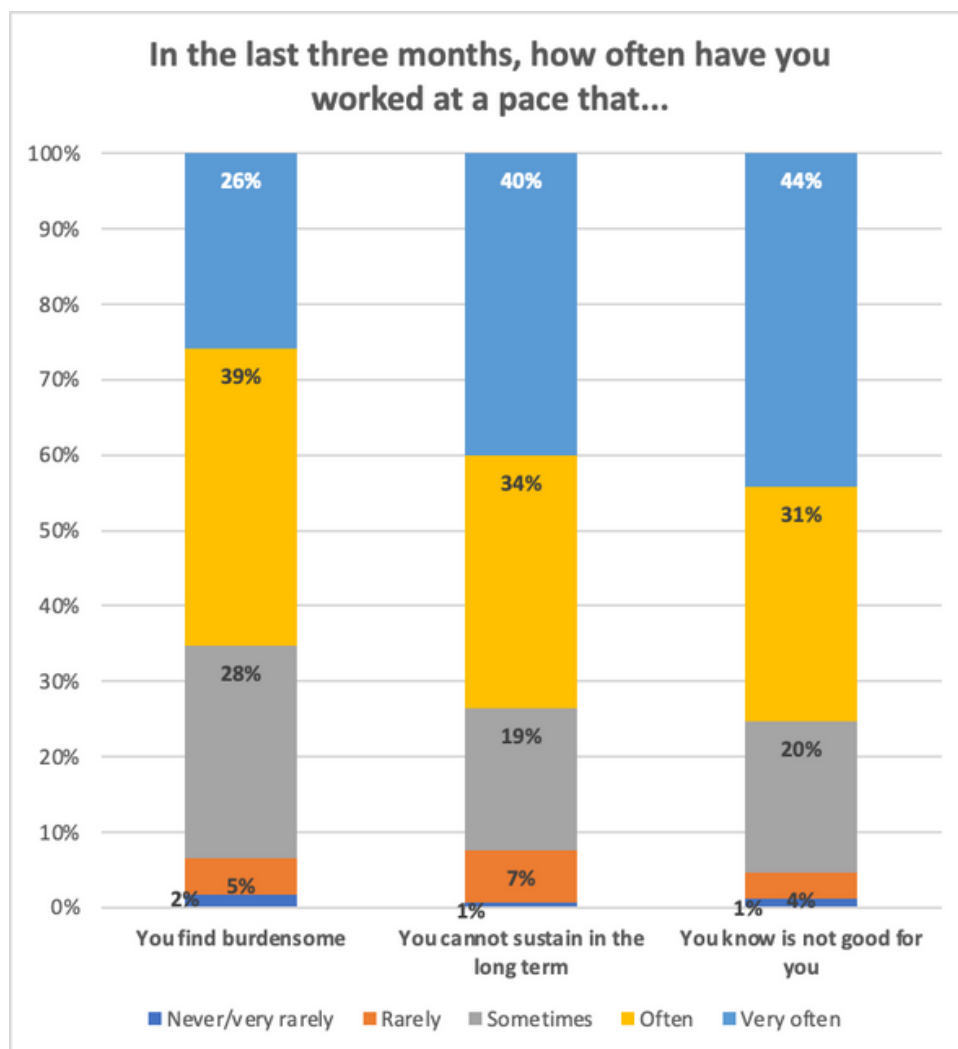
10%

As a group, the majority of senior leaders (73%) in this study reported moderate levels of stress during the Covid-19 pandemic. A larger proportion of female school leaders had moderate and high perceived stress compared to males (moderate: 73% vs 68%, high: 10% vs 8%).

Current work situation

Intensity of work

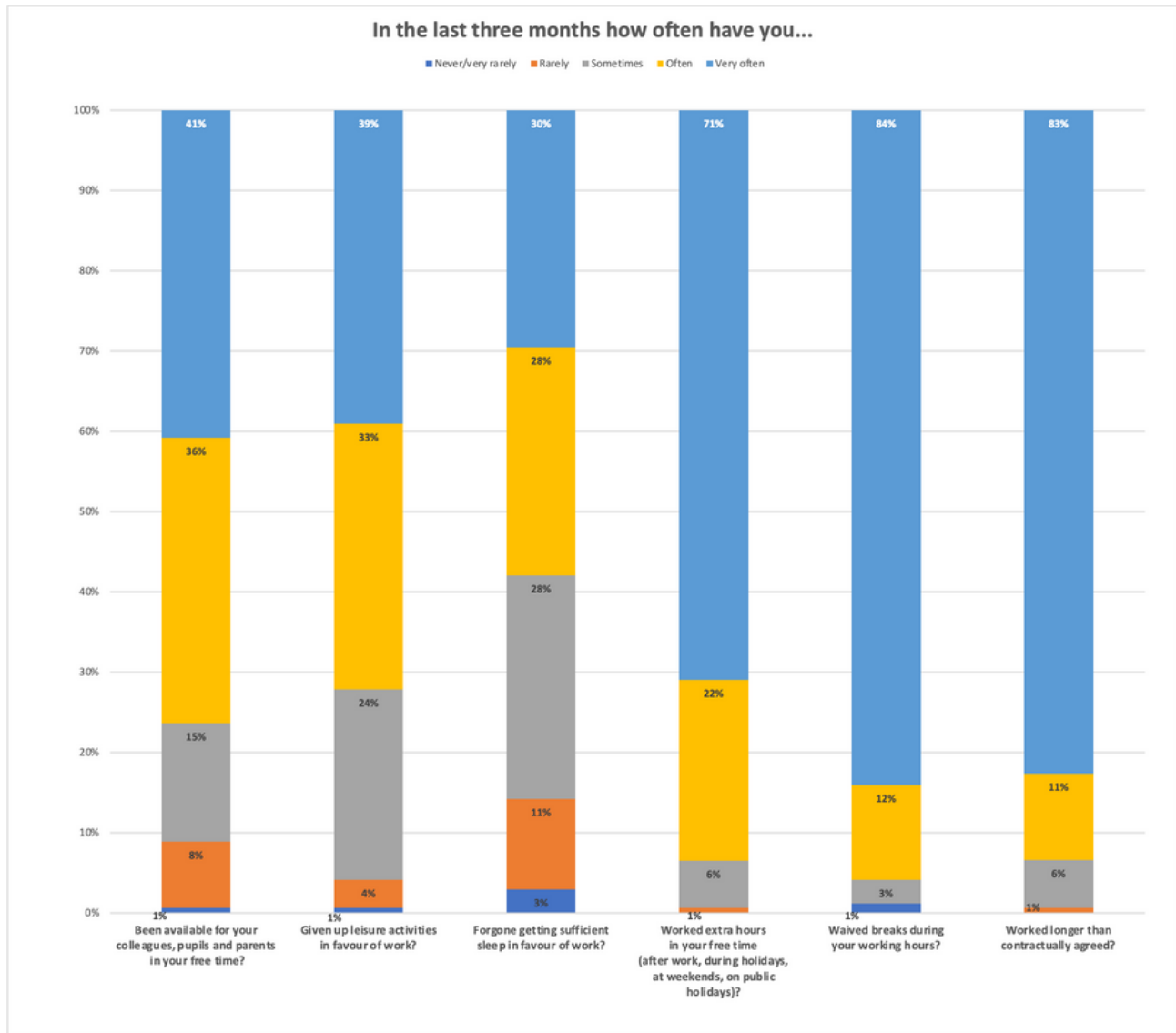
We asked senior school leaders about their thoughts and feelings regarding their work during the COVID-19 pandemic in last month of participating in the survey. These questions explore leaders' 'self endangering behaviour' of their work-related behaviours and working conditions. This is recognised as behaviours that may be functional with regard to attaining work goals in response to coping with excessive working demands, but have a negative effect on longer term health, well-being and ability to work.



The majority of senior leaders reported that very often they work at a pace during the Covid-19 pandemic that is not good for them (44%) and that cannot be sustained in the long term (40%).

Current work situation

Extent of work



83% of senior leaders reported to work longer than contractually agreed and 84% waived breaks during working hours very often, whilst over 70% worked extra hours in their free time.

Current work situation

Quality of work

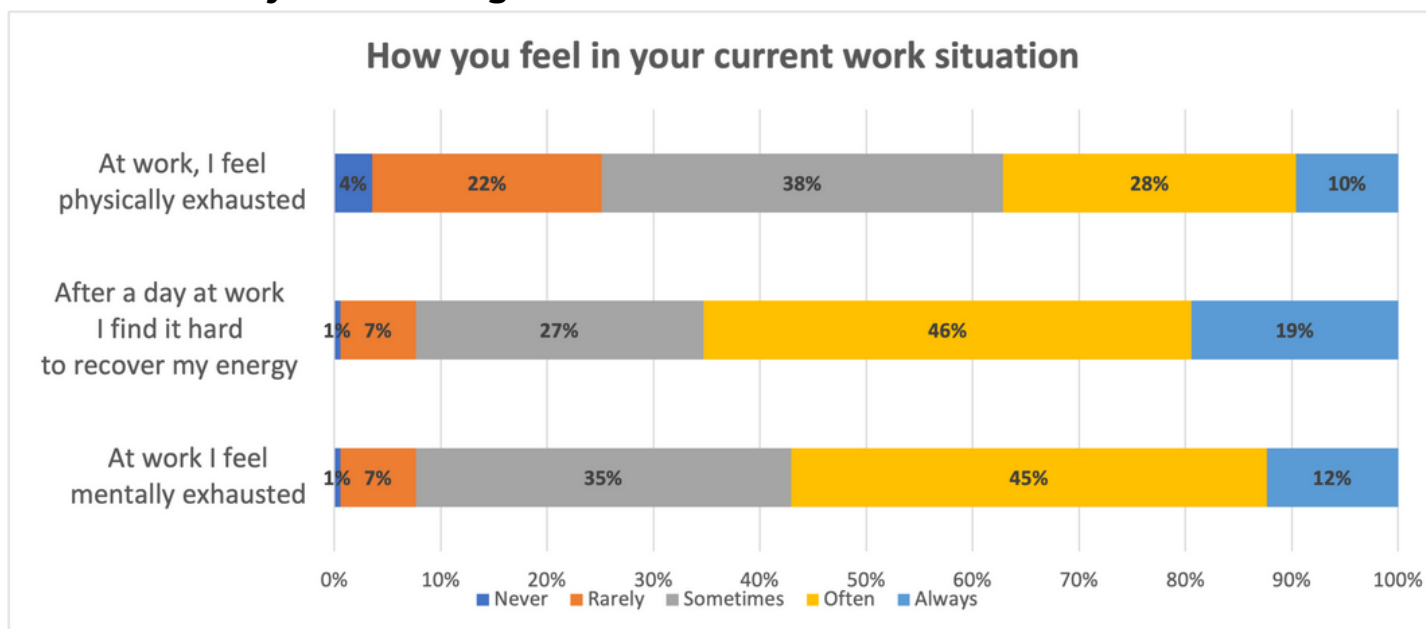


Whilst senior leaders reported significantly higher work loads and being required to carry out more clerical and admin tasks (often: 40%, very often: 37%), they also reported to maintain a high quality of work. Only 2% reported that they had to lower their own work standard very often (often: 19%), and just 5% reported to be satisfied with a lower quality of work compared to before the pandemic (often: 24%).

Current work situation

Exhaustion

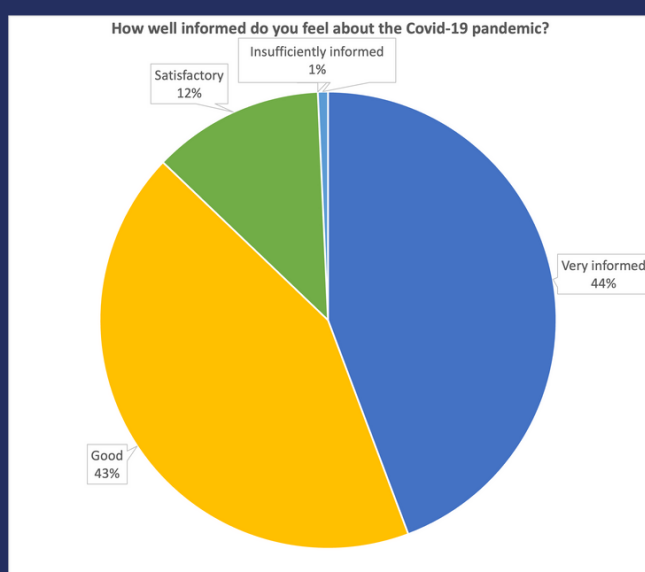
We assessed the levels of exhaustion of senior school leaders using the short form exhaustion sub-scale taken from the Burnout Assessment Tool (BAT). The BAT measures core dimensions of burnout, recognised as an occupational syndrome of chronic workplace stress that can result in physical and mental symptoms (WHO 2019). In the context of COVID-19, high levels of burnout have been reported across a range of professions, in part due to increased workloads, work-related demands and new ways of working.



The majority of senior leaders in this study reported to feel mentally exhausted at work (often: 45%, always: 12%) and found it difficult to recover their energy after a day at work (often: 46%, always: 19%). 28% reported to feel physically exhausted often, and 10% always feeling physically exhausted.

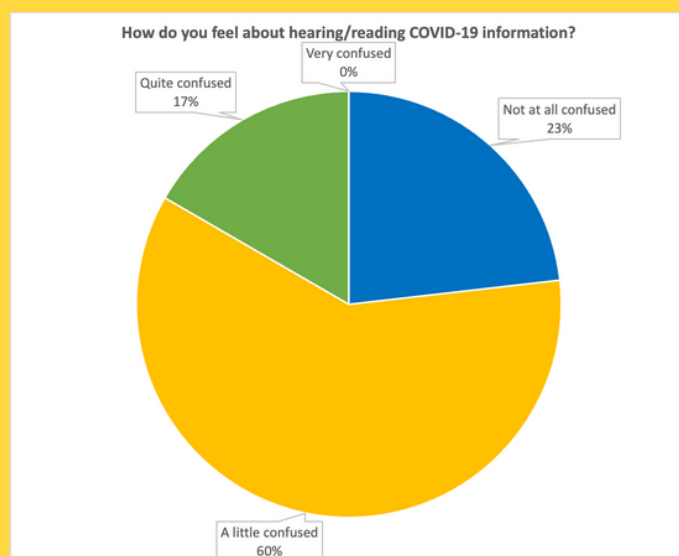
Health information in the context of Covid-19

An "infodemic" has been described in relation to the overabundance of valid and invalid information surrounding the Covid-19 pandemic (Okan et al. 2020). We asked how well informed senior leaders felt about information relating to Covid-19 and how they felt about reading or hearing about information.



The large majority (87%) of senior leaders reported to feel very well or well informed about the Covid-19 pandemic. There was no difference between males and females with how well/very well informed senior leaders felt.

Although a large majority (87%) of senior leaders reported to feel very well or well informed about the Covid-19 pandemic, 60% reported to feel a little confused about hearing or reading information relating to Covid-19. Less than a quarter (23%) did not feel confused at all. Compared to females, a higher proportion of males reported not to feel confused at all (22% vs 17%). Females reporting feeling more confused (16%) than males (10%) mirroring findings in Germany using the same survey (Okan et al. 2020).



Covid-19 health literacy

Health literacy is recognised as a person's ability to access, understand, interpret and apply medical information and make informed decisions regarding medical advice, issues or guidelines (Sørensen et al. 2012).

Higher health literacy is strongly correlated with positive health behaviours and better health outcomes (WHO 2013), and is also associated with a person's education and occupation.

During the COVID-19 pandemic, health literacy has been critical for people to acquire and apply information not only to their own behaviour but for senior school leaders, to their role.

We used an adapted version of the *European Health Literacy Survey Questionnaire (HLS-EU-Q)* (Sørensen et al. 2013) specific to the Covid-19 pandemic (HLS-COVID-Q22) to find out the extent to which senior leaders in Wales can:

- Access and obtain information relevant to Covid-19
- Understand information relevant to Covid-19
- Process and appraise information relevant to Covid-19
- Apply and use information relevant to Covid-19

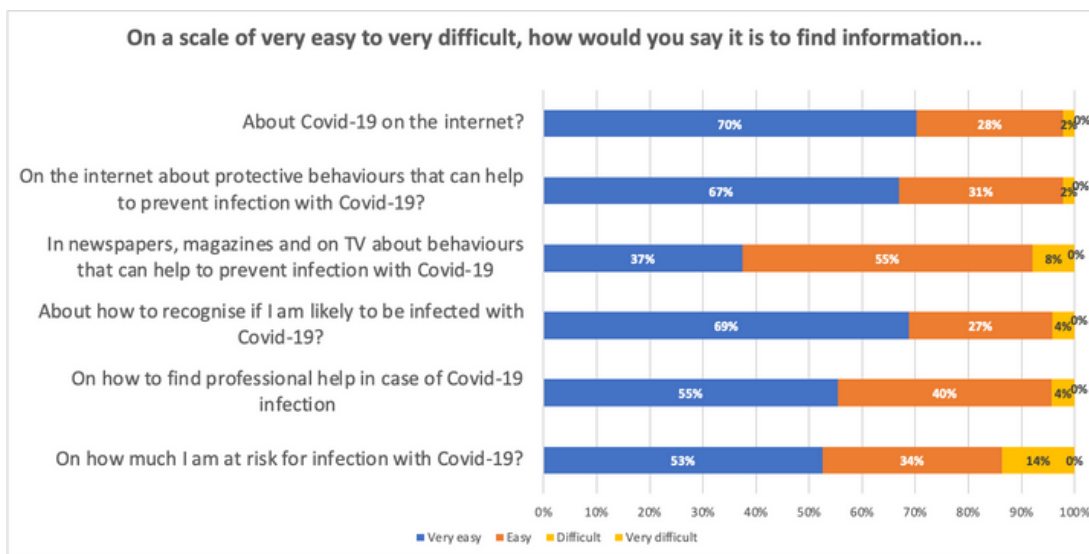
Senior leaders responded to 22 items on a scale from very difficult (1) to very easy (4), and mean scores were used to examine the level of health literacy from:

- Inadequate health literacy (≤ 2.5)
- Problematic health literacy ($>2.5 - <3$)
- Sufficient health literacy (≥ 3)

Covid-19 health literacy

Accessing information

Accessing information mean
3.5: Sufficient health literacy



Mean: health literacy level

≤2.5 inadequate
>2.5 - <3: problematic
≥3 sufficient

3.7: Sufficient health literacy

3.6: Sufficient health literacy

3.3: Sufficient health literacy

3.6: Sufficient health literacy

3.5: Sufficient health literacy

3.4: Sufficient health literacy

Senior school leaders in Wales had sufficient levels of health literacy relating to access to information about Covid-19. Senior leaders reported finding general information on the internet about Covid-19 very easy (70%), and using the internet to find information about protective behaviours to prevent infection easier on the internet (easy/very easy: 98%) than in newspapers, magazines or on TV (easy/very easy: 92%). High levels of health literacy were also reported in recognising infection (69% very easy) and finding professional help (easy/very easy: 95%). However, 14% of school leaders found it difficult to find information on how much they were at risk of infection with Covid-19.

Covid-19 health literacy

Understanding information

Understanding information mean 3.3: Sufficient health literacy

Mean: health literacy level
 ≤2.5 inadequate
 >2.5 - <3: problematic
 ≥3 sufficient

3.2: Sufficient health literacy

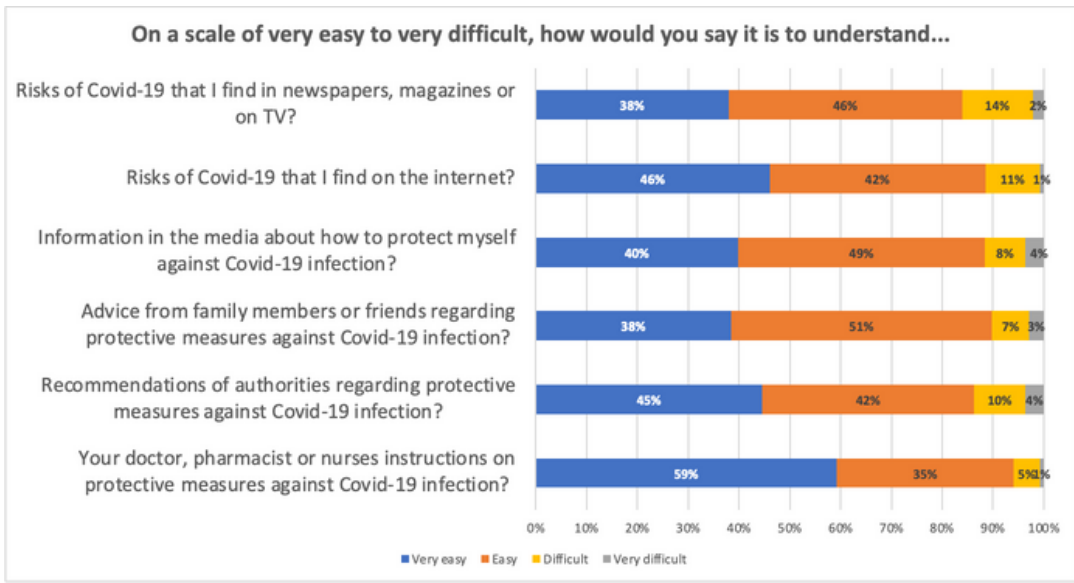
3.3: Sufficient health literacy

3.2: Sufficient health literacy

3.3: Sufficient health literacy

3.8: Sufficient health literacy

3.5: Sufficient health literacy

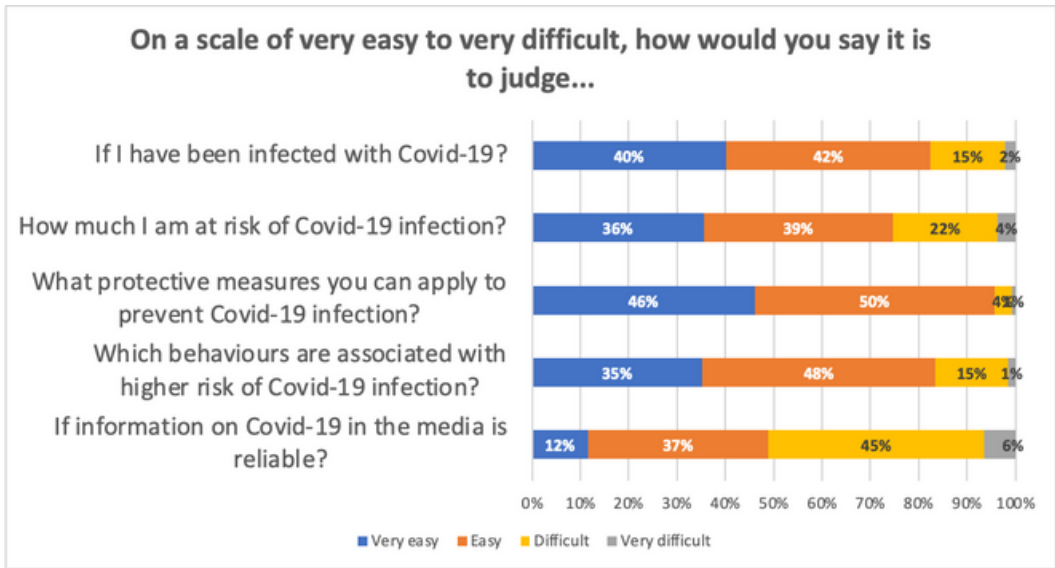


Though slightly lower than accessing information, senior school leaders in this study had sufficient levels of health literacy relating to understanding information about Covid-19. In particular, understanding doctor, pharmacist or nurse's instructions on protective measures (easy/very easy: 94%). The lowest health literacy levels within understanding information was understanding information in the media about how to protect against infection and 14% of senior leaders found it difficult to understand risks of Covid-19 in newspapers, magazines and TV, though this was still of a sufficient health literacy level.

Covid-19 health literacy

Appraising information

Appraising information mean 3.1: Sufficient health literacy



Mean: health literacy level
 ≤2.5 inadequate
 >2.5 - <3: problematic
 ≥3 sufficient

3.2: Sufficient health literacy

3.1: Sufficient health literacy

3.4: Sufficient health literacy

3.7: Sufficient health literacy

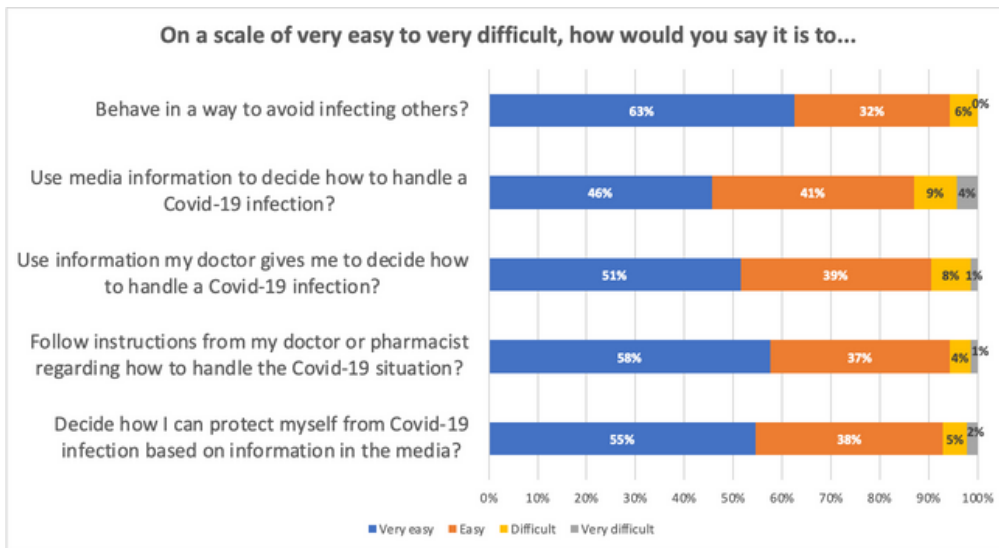
2.5: Problematic health literacy

Appraising information was the lowest sub-scale of the health literacy levels of school leaders but within the cut-point to be categorised as sufficient (mean: 3.1). On average, school leaders had problematic health literacy levels relating judging whether information on Covid-19 in the media is reliable (mean: 2.54), and just above the cut-point for being inadequate, with 45% of leaders reporting difficulties. This could also be associated with findings of understanding information (page 13), where lowest health literacy levels were media-related questions. In addition, 22% of school leaders found it difficult to judge how much they are at risk of Covid-19 infection. However, senior leaders also reported high sufficiency of judging which behaviours are associated with Covid-19 infection (mean: 3.7), and what protective measures to apply to prevent infection (easy/very easy: 96%).

Covid-19 health literacy

Applying information

Applying information mean 3.4: Sufficient health literacy



Mean: health literacy level
 ≤2.5 inadequate
 >2.5 - <3: problematic
 ≥3 sufficient

3.6: Sufficient health literacy

3.3: Sufficient health literacy

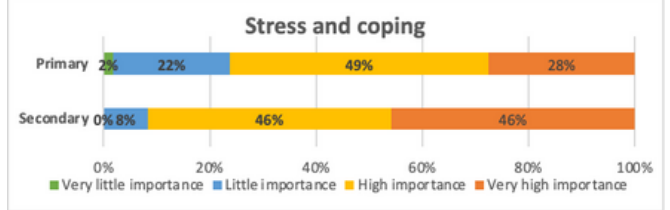
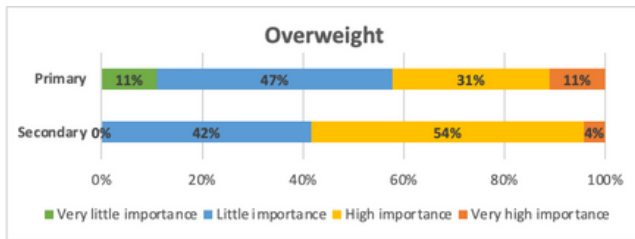
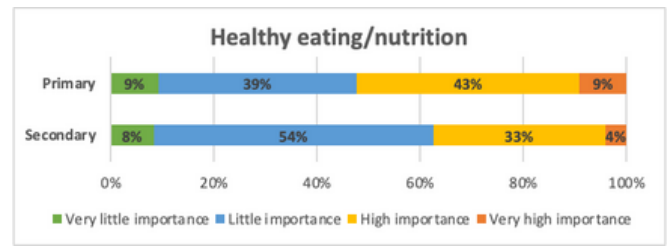
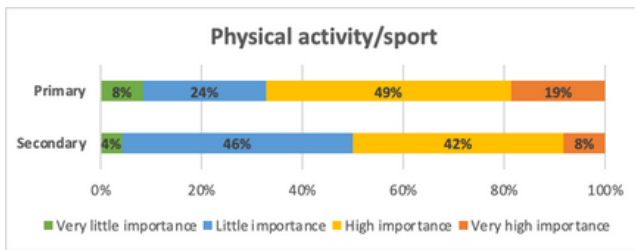
3.4: Sufficient health literacy

3.5: Sufficient health literacy

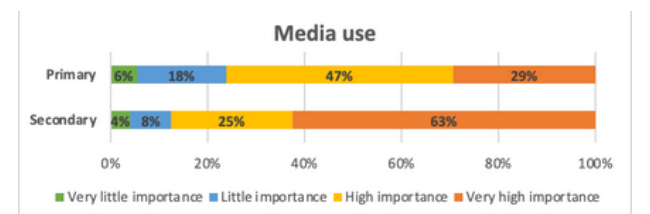
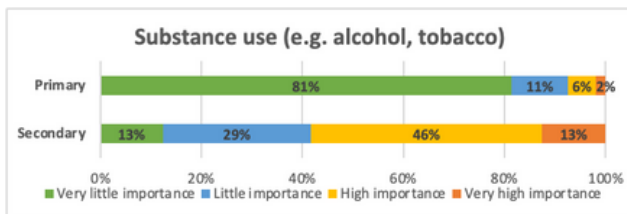
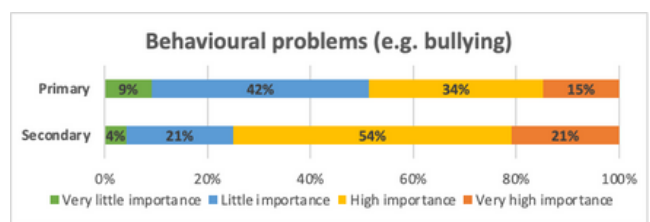
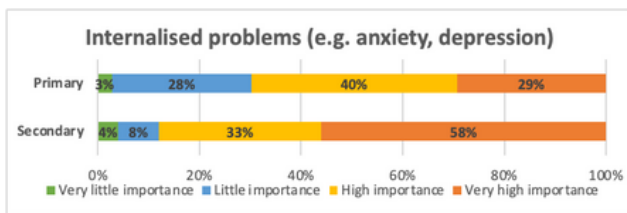
3.5: Sufficient health literacy

School leaders in Wales also had sufficient health literacy levels of applying information relating to Covid-19. Highest sufficiency levels were behaving in a way to avoid infecting others, with 63% reporting it very easy and 32% easy. Following instructions from doctors and pharmacists (very easy: 58%, easy: 37%) and deciding how best to protect themselves from Covid-19 infection based on information in the media (very easy: 55%, easy: 38%) were also highest within the applying information sub-scale. 9% of leaders found it difficult to use information from the media, and 8% reported it difficult to use information from doctors.

Perceived health needs of pupils

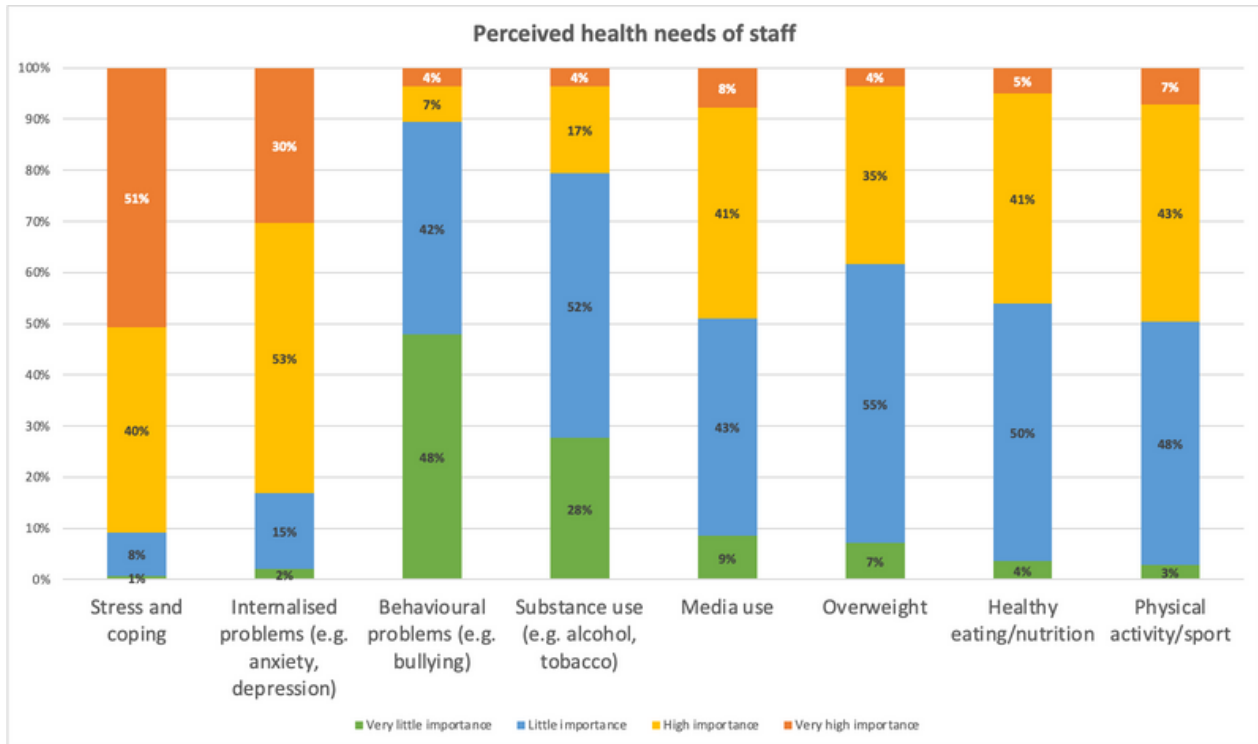


Primary school (ages 3-11) leaders reported slightly higher importance of physical activity/sport (high/very high: 68% vs 50%) and healthy eating/nutrition (high/very high: 52% vs 37%) for pupils than secondary (ages 11-16) school leaders. For secondary school leaders, pupils' weight was an important issue during Covid-19 (high/very high: 58%), and stress and coping was rated as very important during Covid-19 by primary (high/very high: 77%) and particularly by secondary school leaders (high/very high: 92%).



The highest importance of pupils' needs rated by secondary school leaders during Covid-19 was internalised problems such as anxiety and depression of pupils (high/very high: 91%) followed by media use (high/very high: 88%). For primary school leaders most important issues were media use (high/very high: 76%) followed by internalised problems (high/very high: 69%). Pupil behavioural problems such as bullying were reported of higher importance by secondary school leaders (high/very high: 75% vs 49%), in addition to substance use (high/very high: 59% vs 8%).

Perceived health needs of staff

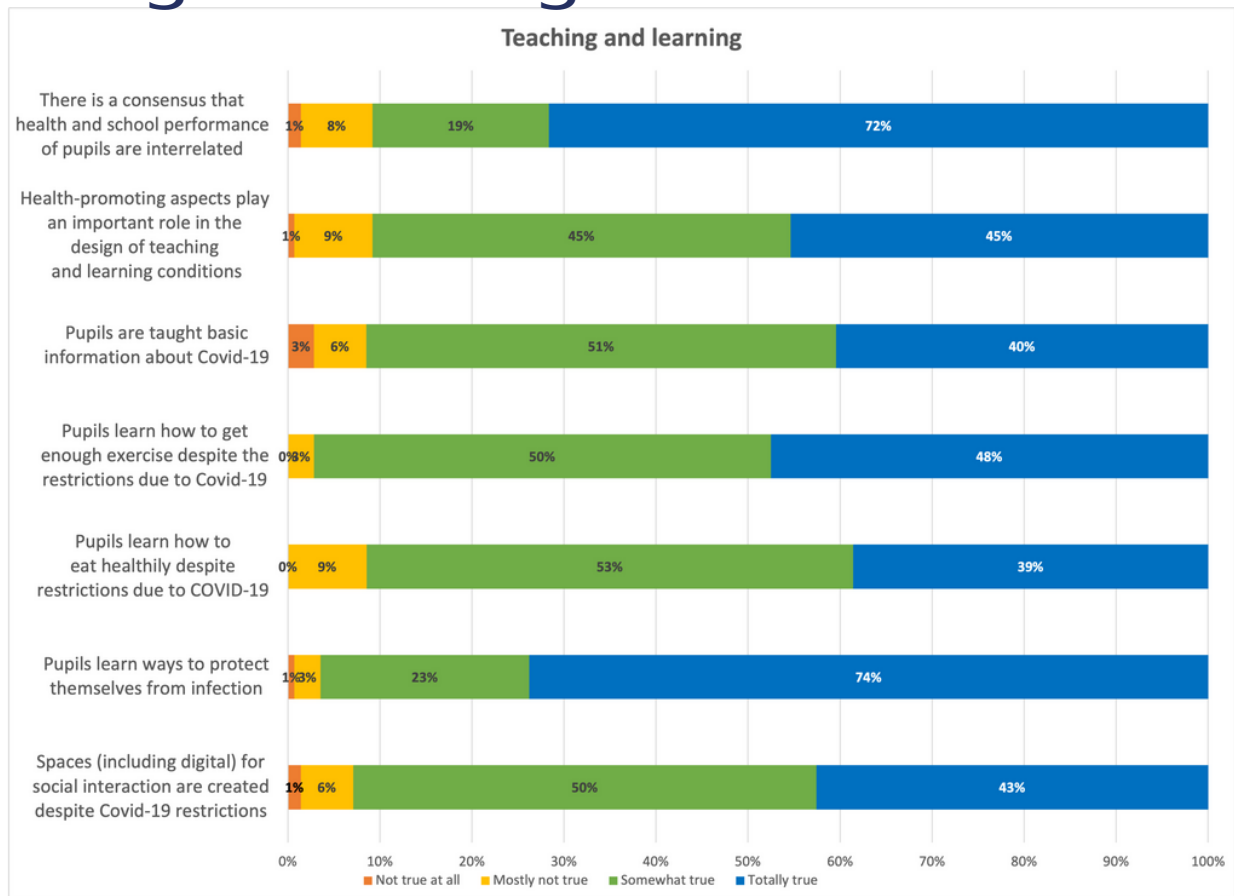


Regarding mental health, the most importance health need of staff as rated by school leaders was stress and coping, with 91% reporting it as being of high/very high importance. Internalised problems of staff such as anxiety and depression were also rated highly (high/very high: 83%), and media use was reported moderately with 49% rating it as high/very high importance. Physical health behaviours rated as important needs of their staff by school leaders included physical activity/sport (high/very high: 50%) and healthy eating (high/very high: 46%), whilst 39% considered overweight as a staff health need. Of lowest importance was substance use such as alcohol and smoking, though 21% still reported this as important, and behavioural problems.

School health promotion and prevention

We asked school leaders about the health promotion and prevention activities at their school during the Covid-19 pandemic. These included activities in factors related to teaching and learning, staff support and training, who was involved in planning activities and how stress-related issues were prioritised.

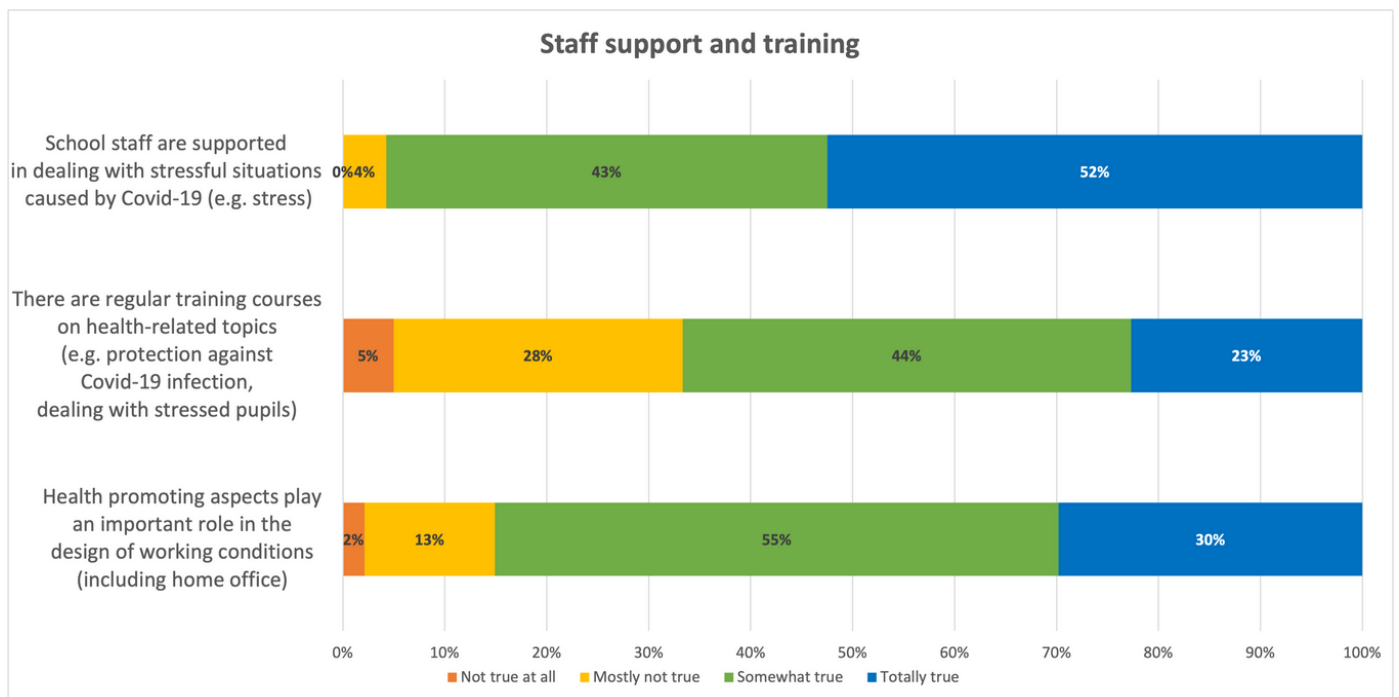
Teaching and learning



72% of school leaders agreed with the statement that health and school performance of pupils are interrelated, showing a commitment to health promoting activities. However, 9% reported this to be mostly not/at all true. Though the majority agreed health and school performance were related, the figure reporting to integrate health promotion within teaching and learning was lower (totally true: 45%). Specific to Covid-19, 74% agreed completely with the statement that pupils were taught of protective measures, 40% reported the statement that pupils are taught basic information about Covid-19 as totally true, and similar figures were reported with learning about physical activity (totally true: 48%) and nutrition (totally true: 39%). Spaces were also made available for social interaction of pupils, with 93% reporting this as totally/somewhat true.

School health promotion and prevention

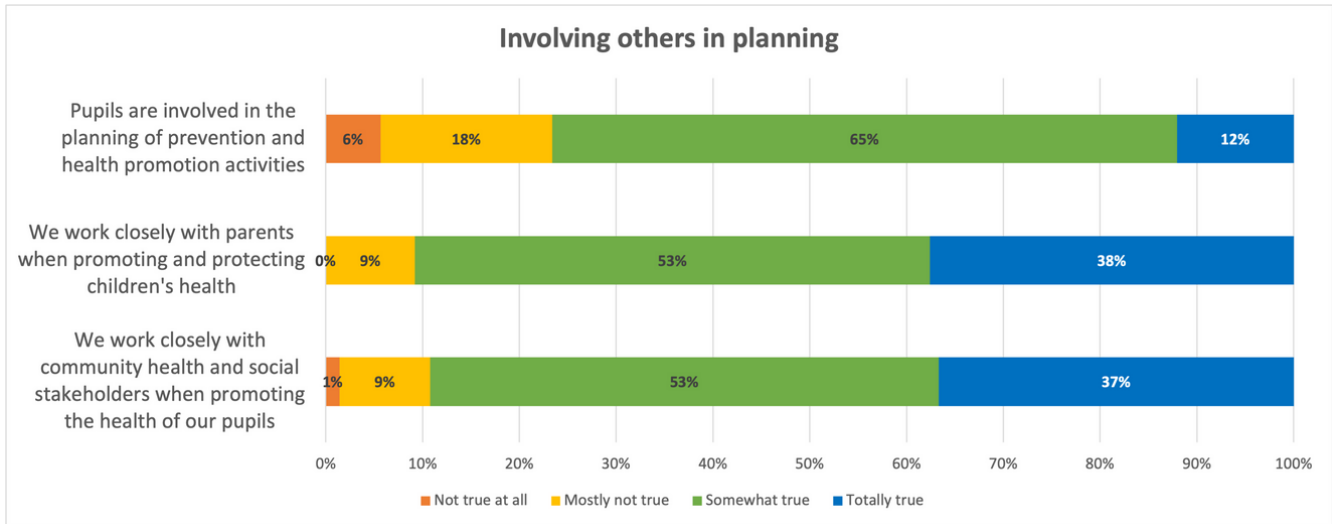
Staff support and training



Linking to the perceived health needs of staff (page 16) where stress and coping was highlighted as the most important staff issue, school staff reported on whether staff are supported with dealing with stressful Covid-19 related situations (totally true: 52%, somewhat true: 43%). Less than a quarter of school leaders reported that there were regular training courses for staff on Covid-19 related topics such as infection and pupil well-being (totally true: 23%), with 28% reporting this statement to be mostly not true. In designing working conditions for staff, 13% said it was mostly not true that health promoting aspects were integrated (totally true: 30%, somewhat true: 55%) compared less than a third (totally true: 30%) reporting this as totally true.

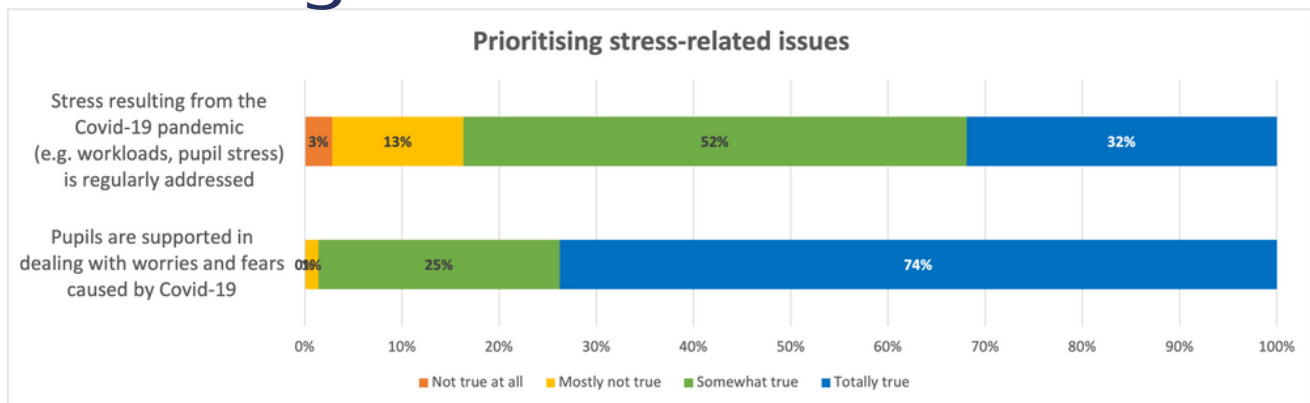
School health promotion and prevention

Involving others in planning



Regarding involving others in the design and planning of health promotion activities, working closely with parents (totally true: 38%, somewhat true: 53%) and with community stakeholders (totally true: 37%, somewhat true: 53%) were rated highest. Just 12% of school leaders reported the statement that pupils were involved in health promotion activity planning as totally true, and nearly one quarter reported this as mostly not/at all true (24%).

Prioritising stress-related issues



Relating to stress and coping mechanisms, 16% of school leaders reported it to be mostly not/at all true that Covid-19 related stress was regularly addressed, such as increased workloads and pupil well-being issues (totally true: 32%, somewhat true: 52%). However, nearly all (99%) school leaders agreed to some extent that pupils were supported in dealing with Covid-19 related worries.

Further information



Contact Dr Emily Marchant:
E.K.Marchant@swansea.ac.uk



HAPPEN Wales primary school network:
www.happen-wales.co.uk



Global study:
www.covid-hl.eu



National Academy for Educational
Leadership Wales:
www.nael.cymru

References

- Cohen, S, Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of health and social behavior*, 24(4), 385–396.
- Cohen, S, Murphy, M, & Prather, A. A. (2019). Ten Surprising Facts About Stressful Life Events and Disease Risk. *Annual review of psychology*, 70, 577–597. <https://doi.org/10.1146/annurev-psych-010418-102857>.
- Dadaczynski K, Okan O, & Messer M. (2021). COVID-19 Health Literacy School Principals Survey (COVID-HL: School Principal): Questionnaire and Scale Documentation. Public Health Centre Fulda (PHZF) at Fulda University of Applied Sciences & Interdisciplinary Centre for Health Literacy Research (IZGK) at Bielefeld University. Doi: <https://doi.org/10.4119/unibi/2952552>
- Davies A (2022) More than a "sticking plaster": Understanding the demands and identifying the resources to create sustainable senior leadership in Welsh education. Insight series. National Academy for Educational Leadership. Available at: <https://nael.cymru/wp-content/uploads/2022/04/Dr-Ali-Davies-Compassionate-Leadership-FINAL-VERSION2.pdf>
- Eriksson M & Lindström B. (2006). Antonovsky's sense of coherence scale and the relation with health: a systematic review. *Journal of epidemiology and community health*, 60(5), 376–381. <https://doi.org/10.1136/jech.2005.041616>
- Grødal K, Innstrand ST, Haugan G and André B (2019). Work-Related Sense of Coherence and Longitudinal Relationships with Work Engagement and Job Satisfaction. *Scandinavian Journal of Work and Organizational Psychology*, 4(1): 5, 1–11. DOI: <https://doi.org/10.16993/sjwop.73>.
- James M, Marchant E, Defeyter MA, Woodside J, Brophy S. (2021) Impact of school closures on the health and well-being of primary school children in Wales UK: a routine data linkage study using the HAPPEN Survey. *BMJ Open*. 2021 Oct 8;11(10):e051574. doi: 10.1136/bmjopen-2021-051574.
- Marchant E, Todd C, James M, Crick T, Dwyer R, et al. (2021) Primary school staff perspectives of school closures due to COVID-19, experiences of schools reopening and recommendations for the future: A qualitative survey in Wales. *PLOS ONE* 16(12): e0260396. <https://doi.org/10.1371/journal.pone.0260396>
- National Academy for Educational Leadership (2020) Well-being of School Leaders National Survey. Available at: <https://nael.cymru/wp-content/uploads/2021/04/Well-being-of-School-Leaders-National-Survey.pdf>
- Okan O, Bollweg TM, Berens EM, Hurrelmann K, Bauer U, & Schaeffer D. (2020). Coronavirus-Related Health Literacy: A Cross-Sectional Study in Adults during the COVID-19 Infodemic in Germany. *International journal of environmental research and public health*, 17(15), 5503. <https://doi.org/10.3390/ijerph17155503>
- Sørensen K, Van den Broucke S, Fullam J, et al. (2012) Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*, 12(80), doi:10.1186/1471-2458-12-80.
- K, Van den Broucke S, Pelikan JM. et al. (2013) Measuring health literacy in populations: illuminating the design and development process of the European Health Literacy Survey Questionnaire (HLS-EU-Q). *BMC Public Health* 13(948). <https://doi.org/10.1186/1471-2458-13-948>
- Topp CW, Østergaard SD, Søndergaard S, Bech P. (2015) The WHO-5 Well-Being Index: a systematic review of the literature. *Psychother Psychosom*. 84(3):167-76. doi: 10.1159/000376585. Epub Mar 28. PMID: 25831962.
- Vogt K, Gregor J and Bauer GF (2013). Comprehensibility, manageability and meaningfulness at work: construct validity of a scale measuring work-related sense of coherence. *South African Journal of Industrial Psychology*, 39(1):8pp. DOI: <https://doi.org/10.4102/sajip.v39i1.1111>.
- White RG & Van Der Boor C (2020). Impact of the COVID-19 pandemic and initial period of lockdown on the mental health and well-being of adults in the UK. *BJPsych open*, 6(5), e90. <https://doi.org/10.1192/bjo.2020.79>
- World Health Organisation (2013) Health literacy. The solid facts. Copenhagen, Denmark.
- World Health Organisation (2019) Burn-out an "occupational phenomenon": International Classification of Diseases. Available at: <https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases>