

During the Covid-19 lockdown of May 2020, thousands of people took part in Stoic Mindfulness and Resilience Training (SMRT), a four week e-learning programme developed by Donald Robertson with the support of the Modern Stoicism team. As well as providing a useful resource for participants who wish to learn about how to practice Stoicism, this and other Modern Stoicism programmes are aimed at increasing what we know about the potential benefits of Stoicism. To this end, the thousands of people from around the world who signed up for SMRT 2020 were asked to fill in a set of questionnaires at the beginning and end of SMRT. These included a questionnaire which measured resilience and one which measured what has become known as “lower-case” stoicism – emotional repression and the “stiff upper lip”. We were also interested in looking at ways to increase engagement and retention as this is a feature that will be important to the NHS and other organisations who may consider offering SMRT or similar courses.

From a research perspective, we wanted to answer 4 questions.

- 1) [What is the relationship between lower-case, stiff upper lip stoicism and upper-case Stoicism \(the life philosophy advocated by ancient and modern Stoics\)](#)
- 2) [Is Stoicism positively associated with resilience?](#)
- 3) [Could we improve engagement as measured by retention rate at end of SMRT?](#)
- 4) [Would Stoicism still be helpful in the face of a worldwide pandemic? If so, would it be more or less helpful than in normal times?](#)

After providing more [background](#) information, the main part of this report addresses these 4 questions. Details of the course contents, measures used and statistical findings are provided in the appendices as follows

[A Course Content](#)

[B Demographics](#)

[C Liverpool Stoicism Scale](#)

[D – Brief Resilience Scale](#)

[E Stoic Attitudes and Behaviour Scale \(SABS v5.0\)](#)

[F Satisfaction with Life Scale](#)

[G Flourishing Scale](#)

[H Scale of Positive and Negative Emotions \(SPANE\)](#)

Background

Stoic Mindfulness and Resilience Training (SMRT) is a month long e-learning programme developed by Donald Robertson with the support of the Modern Stoicism team. It was first run in 2014 and has taken place a number of times since. The course provides an in-depth training in certain aspects of Stoicism, integrating it with exercises from third-wave CBT. Further details about the course content can be found in [Appendix A](#).

This year SMRT was co-facilitated by Donald Robertson and Tim LeBon. The training consisted of a booklet available on-line and also in pdf form and also weekly webinars, short instructional videos and 2 separate discussion groups, one through the e-learning platform Teachable and one via Facebook. Over 5000 people enrolled and many people throughout May watched the weekly webinars, did the daily exercises and interacted with their fellow participants and facilitators through the internet. Over 2500 people voluntarily completed the questionnaires at the start of SMRT enabling us to answer the 4 research questions. Further details about the demographics of participants is provided in [Appendix B](#).

What is the relationship between lower-case, stiff upper lip stoicism and upper-case Stoicism (the life philosophy advocated by ancient and modern Stoics)?

The dictionary defines stoicism as “the quality of experiencing pain or trouble without complaining or showing your emotions:” as in “he endured the pain of his wounds with great *stoicism*.” (<https://dictionary.cambridge.org/dictionary/english/stoicism>). This may accurately convey how the word “stoic” has come to be used in the English language, but many experts would agree that the *philosophy* of Stoicism is something quite different.ⁱ Modern Stoics helpfully distinguish between lower case s stoicism, as in the dictionary definition, and upper case Stoicism – the philosophy of Stoicism. A Stoic (upper case) views adversities as “dispreferred indifferents” and so does not feel such strong negative emotions and therefore has no need to repress emotions.

Unfortunately this misconception of stoicism may have repercussions beyond the general public. There is a growing case that Stoicism could be offered more widely as part of a training for resilience and well-being. However it would not be surprising if decision makers were reluctant to embrace Stoicism if they confuse it with stoicism. There are reasons to think that this confusion may exist. “In health literature it [stoicism] is used to describe illness behaviour characterized by silent endurance and lack of emotion – often described as a ‘stiff upper lip’”. (Moore et al (2012).ⁱⁱ Moreover, research suggests that lower-case stoicism may be associated with *negative* outcomes. “Not acknowledging pain in non-self-limiting conditions, such as cancer, can lead to negative outcomes and poor pain management and treatment (Hillier, 1990)ⁱⁱⁱ. Contemporary stoicism is often therefore seen to be ‘maladaptive’ in this context (Spiers, 2006).^{iv}

How would it be possible to determine whether stiff upper lip stoicism actually is different from Stoicism? The strategy used was to use a questionnaire that measures “stiff upper lip” stoicism and learn to what extent it is correlated with Stoicism as measured by the SABS. Furthermore, we could also see whether “stiff upper lip” stoicism when participants undertook a training in Stoicism. Our hypothesis was that there would be a small, positive but insignificant correlation between the two types of stoicism and that doing a course in Stoicism would not significantly increase the “stiff upper lip”.

The Liverpool Stoicism scale, as described in [Appendix C](#), is a measure of lower-case, “stiff upper lip” stoicism, assessing a person’s tendency to repress emotions. Typical questions include “One should keep a stiff upper lip”, “I don't really like people to know what I am feeling.” and “It makes me uncomfortable when people express their emotions in front of me”

Results

1. The correlation between Liverpool Scale (lower case stoicism) and SABS (Upper Case Stoicism) at start of SMRT was -.1. (minus point one). Far from lower case stoicism being the same as Stoicism -in which case the correlation would be +1 – we found there was actually a small *negative* correlation.

2. Whilst Stoicism (as measured by SABS) increased significantly after a month of SMRT, there was not a similar increase in lower-case stoicism – in fact it decreased on average by 2%
3. Representative items in the Liverpool scale exhibited a similar pattern
 - #7 “It makes me uncomfortable when people express their emotions in front of me” reduced by 8% at the end of SMRT and was negatively correlated (-.23) with SABS at the start of SMRT.
 - #8 “I don't really like people to know what I am feeling” reduced by 6% and was negatively correlated (-.19) with SABS .
 - #11 “One should keep a stiff upper lip” reduced by 8% and was negatively correlated (-.09) with SABS .

Further details can be found in [Appendix C](#).

We conclude that lower-case stoicism - the “stiff upper lip” and emotional repression – has nothing to do with Stoicism, properly understood. We urge health care providers to be mindful of this distinction.

Is Stoicism positively associated with resilience?

What benefits can reasonably be claimed for Stoic practice?

Flourishing, happiness, anger management, dealing with loss, anxiety management, personal development, ageing well

These are all plausible candidates for potential gains from practising Stoicism.

However, perhaps the most convincing rationale for practising Stoicism – and one mentioned in the very title of SMRT – is to increase *resilience*. Resilience, the ability to bounce back from adversity, is a highly regarded quality. From a public health point of view, helping people to be resilient is seen as part of a “prevention not cure” approach, and could be applied to the population at large, not just those who have already been identified with a psychological issue.

Yet, until now, there has never been any attempt to determine whether Stoicism is associated with resilience or whether a dose of Stoicism boosts resilience.

As part of SMRT 2020, we asked participants to complete the Brief Resilience Scale (BRS) at the start and end of the programme. This enabled us to determine whether Stoicism (as measured by SABS) was associated with resilience (as measured by the BRS). We would also be able to tell whether a month of Stoic practice increased people’s sense of their own resilience (as measured by BRS).

Results

At the start of SMRT, there was a very high correlation between Stoicism and the BRS - .53. The chances of this being a chance association is less than 1 in ten million. There was also a very high and consistent correlation between SABS and individual items in the BRS.

After a month of Stoicism, participants’ scores increased by a significant 13% on the BRS. There was a consistent increase of 10% or more for all 6 items in the Brief Resilience Scale.

For further details see [appendix D](#).

Incidentally, there was a negligible correlation between “stiff upper lip” stoicism as measured on the Liverpool Stoicism Scale and resilience as measured on the BRS

We conclude that there is a very high association between Stoicism and resilience. SMRT is a good candidate for those wishing to increase their resilience.

Could we improve engagement as measured by retention rate at end of SMRT?

Drop-out rates for on-line trainings are notoriously high, and are even higher for free like SMRT^v. It is very important however that SMRT and other Stoic course have relatively high rates both so that the statistics are not skewed^{vi} and also to demonstrate a good retention rate to organisations who are considering Stoic course as an option.

For this reason, we made it a course aim to attempt to increase the retention rate for SMRT 2020. To this end, as well as the Teachable group, webinars and materials being available on Teachable, we

- Supplied a pdf version of the materials – previously it had only been available on Teachable.
- Sent the materials once a week by email as a “prompt”
- Created short instructional videos related to course material
- Created a Facebook group to improve interaction - although it has its disadvantages, Facebook is better suited to group discussions than Teachable.
- Engaged two facilitators (instead of one) to respond to student’s comments and questions
- Engaged three volunteers to help monitor any issues with the Facebook or Teachable

Results

	2020 SMRT	2018 SMRT	2017 SMRT	2014 SMRT
No at start	2582	1591	908	504
No completed	976	325	254	162
% Completed	38%	20%	28%	31%

Table 1 – Completion rates for SMRT 2020 compared to previous SMRTs.

Table 1 shows the retention rates for SMRT 2020 as compared with previous SMRTs. Note that even in 2018, the retention rate of 20% was better than the 15% quote as an average for MOOCs.

However, the retention rate of SMRT 2020 was a big improvement on that, being 38% This *could* of course be attributed to factors other than our attempts to increase engagement – such as lockdown and the absence of competing distractions. However, the individual feedback relating to these innovations was also positive and there is reason to think that all

of them played a part. It is recommended that if possible these measures are repeated in the next SMRT, which, fate permitting, may be at a time when there is no lockdown.

Would Stoicism still be helpful in the face of a worldwide pandemic? If so, would it be more or less helpful than in normal times?

As table 2 below illustrates, there were significant moves in the right direction regarding the well-being of participants, however it was measured. A breakdown of the scores can be found in the appendices.

	Life Satisfaction	Flourishing	Positive Emotions	Negative Emotions	Resilience
Start	23	41.7	20.7	-15.4	19.4
End	26.2	46.1	23	-13	22
% Change	14	10	11	-15	13

Table 2: Impact of taking part in SMRT

Other notable findings

- Participants degree of Stoicism (as measured by SABS) increased by 11.5%
- Participants’ stated their knowledge of Stoicism as having increase by 33%
- Participants’ identifying themselves as a Stoic increased by 16%
- Some of the SABS items most related to well-being (#48 and #33) improved by very significant amounts as shown in table 3 below.

#	Statement	% Change
48	Even when I can’t do anything more about a problem I still worry about it a lot.	35.4
33	I spend quite a lot of time worrying about the future.	29.0
3	If bad things happen to you, you are bound to feel distressed.	26.5
19	I spend quite a lot of time dwelling on what has gone wrong in the past.	26.1
23	I cannot really be harmed by what other people say.	25.5
4	Having good understanding and good character is all that is required in order to be happy.	25.4
32	I need to be well thought of by others in order to be happy.	23.4
38	When a negative thought enters my mind, I remind myself that it is just an interpretation of the situation.	22.4
43	I need to be in good health in order to be happy.	21.7
8	Bad luck could stop me being happy.	21.4

Table 3 – SABS items with the biggest improvement

The qualitative feedback given at the end of SMRT were also in the main very positiv

Sample comments

It was wonderful and it taught me a lot about self control.

Well researched with depth of knowledge to a historic way of thinking!

This has been a fabulous free course and resource. The exercises are easy to follow and incorporate in my daily life.

Excellent experience.

Very helpful and thought provoking

Just want to thank you for offering the course. It has been so helpful to me in this time of ... uncertainty pain and challenge.

How did SMRT 2020 compare with previous SMRTs?

	2020 SMRT	2018 SMRT	2017 SMRT	2014 SMRT
No at start	2582	1591	908	504
No completed	976	325	254	162
% Completed	38%	20%	28%	31%
SWL increase	15	19	22	27
Flourish Increase	13	14	17	17
Positive emotions increase	13.3		17	16
Negative Emotions reduce	15.5		20	22.7
SABS increase	12	13	17	

Table 4: Comparison of SMRT 2020 with previous SMRTs

SMRT2020 has comparable results in terms of well-being with other SMRTs, although there was somewhat reduced levels of improvements, especially in comparison with 2014. This may be partly due to the impact of lockdown on well-being and/or the increased number of completed questionnaires at the end of SMRT 2020 compared to previous years^{vii} It provides

the largest sample of any SMRT and the largest number of participants completing, the latter by a factor of 300%.

Conclusions

- 1) “Stiff upper lip” or “lower-case” Stoicism was found to be un-related to the philosophy of Stoicism “upper-case”.
- 2) Resilience has been found to be positive associated with Stoicism and a month’s training in Stoicism significantly increases resilience
- 3) A record number of people completed the 1 month SMRT programme, indicating that the attempts at increasing engagement were successful -although lockdown may have played some part in this result.
- 4) As would be predicted from previous SMRTs, well-being increased significantly however it is measured -though not by quite as much as some previous SMRTs, high again may be due to the impact on the pandemic and lockdown on well-being.

Appendix A Course Content

Stoic Mindfulness and Resilience Training (SMRT) is an e-learning programme developed by Donald Robertson with the support of the Modern Stoicism team. The training consisted of a booklet, available on-line and also in pdf form and also weekly webinars, short instructional videos and 2 separate discussion groups, one in Teachable and one on Facebook SMRT 2020 was co-facilitated by Robertson and Tim LeBon and three volunteers assisted in facilitating the discussion groups.

Week 1: Orientation and Preparation This section is loosely based on the Stoic approach to ancient “Physics” or “natural philosophy”, and encourages participants to become more mindful of the present moment and to view their experiences objectively, from a detached “scientific” perspective, as a way of living more in agreement with the nature of the world.

Week 2. Stoic Virtues This section is loosely based on Stoic Ethics, and the importance of acting in accord with certain values or virtues.

Week 3. Stoic Mindfulness This section deals with subjects related to Stoic Logic and theory of knowledge, and involves learning to live in harmony with reason by suspending value judgements when they arise and viewing automatic impressions with greater psychological “distance”.

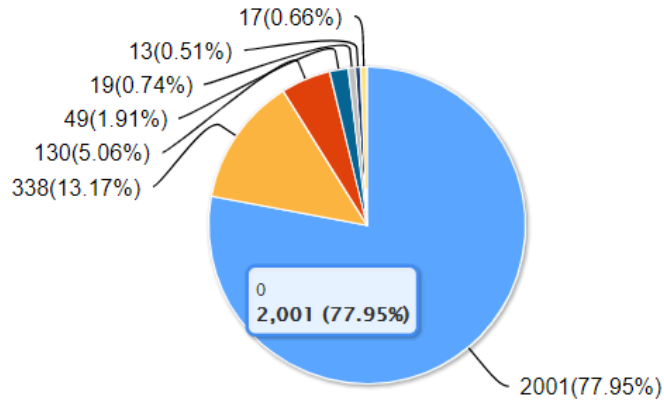
Week 4. Stoic Resilience This section focuses on ways to maintain well-being in the long-term by anticipating future adversity and potential setbacks and preparing to cope with them resiliently

Practical exercises included:-

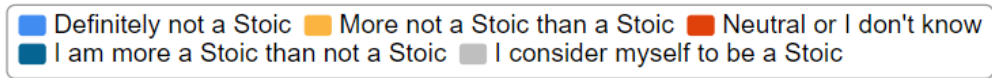
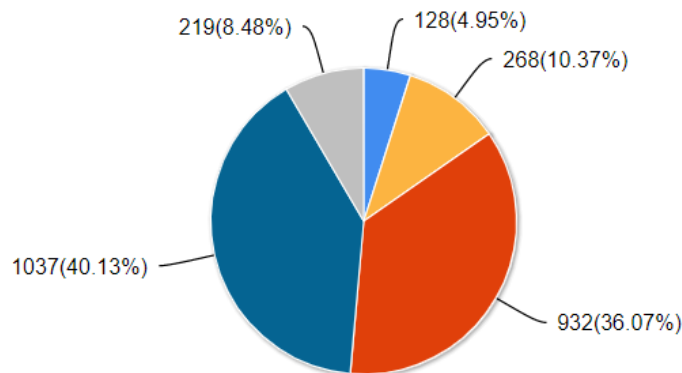
- Stoic Mindfulness
 - 2 column dichotomy of control exercise
 - Mindfulness of the Present Moment (derived from Gestalt Therapy)
 - Keeping a tally of unhealthy emotions and desires.
 - Stoic self-monitoring record sheet
- Stoic Attitude Meditation audio recording (15 mins)
- Values Clarification Exercises
 - Direct questions
 - Modelling questions
 - Perspective-shifting questions
 - Additional questions
 - Desirable versus Healthy and Praiseworthy Exercise
- Valued Living Activity Scheduling
- Contemplation of the Good (or of Virtue) Meditation
- Breathing with virtue Meditation
- Self-monitoring of virtue

- Morning Meditation (4 min)
- Leaves on a Stream exercise (Cognitive distancing adapted from ACT)
- Self-monitoring of worry and rumination
- Worry postponement.
- Stoic Evening meditation (6 mins)
- Mindfulness and Premeditation of Adversity (15 min.)
- Rapid-Frequent brief Mindfulness.
- Blueprint of coping plan for likely problems

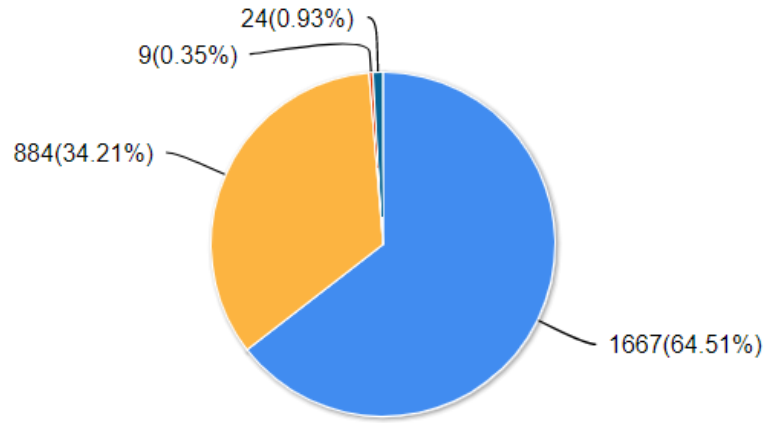
How many times have you taken part in Stoic Week or SMRT before?



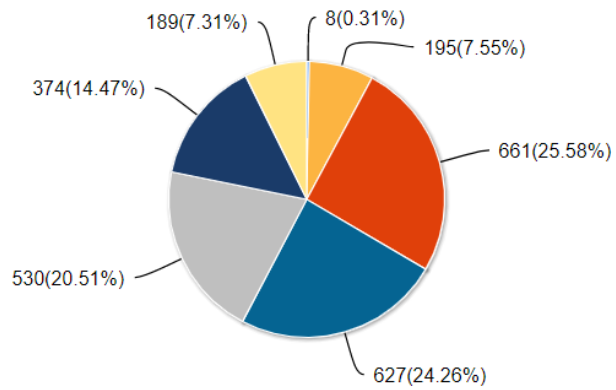
To what extent do you consider yourself to be a Stoic?



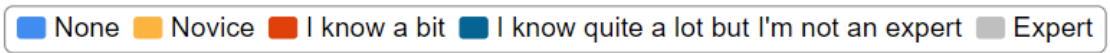
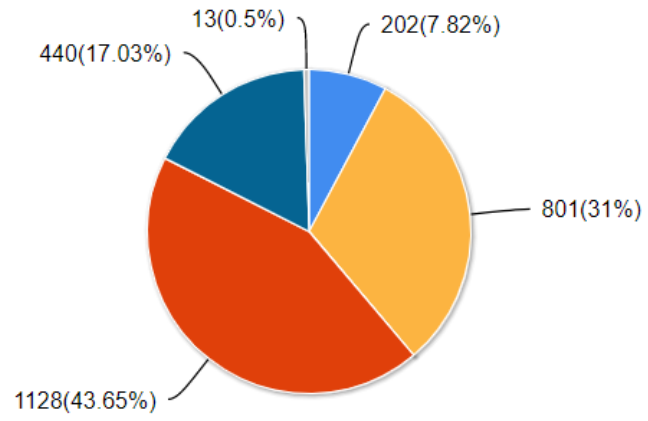
What is your gender?



What is your age?



How would you describe your prior knowledge of Stoicism?



Where did SMRT 2020 participants live?

Country	Count	%
United States	788	30.50%
United Kingdom	642	24.85%
Canada	207	8.01%
Australia	128	4.95%
Netherlands	64	2.48%
Germany	59	2.28%
Spain	55	2.13%
Ireland {Republic}	43	1.66%
India	38	1.47%
France	31	1.20%
Brazil	28	1.08%
New Zealand	26	1.01%
Sweden	26	1.01%
South Africa	20	0.77%
Switzerland	20	0.77%
Poland	19	0.74%
Argentina	17	0.66%
Belgium	17	0.66%
Philippines	17	0.66%
Portugal	17	0.66%
Mexico	16	0.62%
Italy	15	0.58%
Russian Federation	15	0.58%

The above countries constituted about 90% of the participants - a large number of other countries had less than 15 participants, making up about 10% of the total.

Appendix C The Liverpool Stoicism Scale

The Liverpool Stoicism Scale is a self-reported questionnaire; it consists of 20 items whose content refers to lack of emotional involvement, dislike for openly expressing emotion, and the ability to withstand emotion. Responses were recorded on a 5-point Likert scale ranging from strongly disagree to strongly agree.

It was designed to measure stoicism – it was a hypothesis of the Modern Stoicism team that what it measured is best described as “lower-case” stoicism and is not strongly related to the philosophy of Stoicism (“upper-case”).

Table B-1 shows the table and also the average score at the start of SMRT and the change in score for each item by the end of SMRT.

Items marked with asterisks are reverse-scored. Higher scores indicate greater (lower case) stoicism levels. A negative change means that after doing Stoic exercises for a month, the degree of (lower-case) stoicism actually dropped.

Reference: Wagstaff G and Rowledge A (1995) Stoicism: Its relation towards gender, attitudes towards poverty, and reactions to emotive material. *Journal of Social Psychology* 135(2): 181–184.

Scale used with permission of the author

#	Item	Average adjusted score start of SMRT2020	% change at end of SMRT 2020	Correlation with SABS at start of SMRT 2020
1*	I would not mind sharing my problems with a female friend.	2.0	-5.0	-0.13
2*	A problem shared is a problem halved	2.6	-7.8	-0.11
3	I would not cry at the funeral of a close friend or relative.	2.1	0.6	-0.01
4	Expressing one's emotions is a sign of weakness.	1.8	-4.3	-0.19
5	I tend to keep my feelings to myself.	3.3	-5.0	-0.08
6*	I would not mind sharing my problems with a male friend.	2.2	-9.2	-0.18
7	It makes me uncomfortable when people express their emotions in front of me.	2.4	-7.6	-0.23
8	I don't really like people to know what I am feeling.	3.0	-6.3	-0.19
9*	I rely heavily on my friends for emotional support.	3.6	0.2	0.01
10*	I always take time out to discuss my problems with my family.	3.5	-5.2	-0.11
11	One should keep a stiff upper lip	2.6	-8.2	-0.09
12*	I tend to cry at sad films.	2.7	3.1	0.02
13*	I sometimes cry in public.	3.7	-1.0	-0.06
14	I do not let my problems interfere with my everyday life.	2.9	13.6	0.42
15	I tend not to express my emotions.	2.9	-3.2	-0.07
16*	I like someone to hold me when I am upset.	3.1	0.8	0.05
17	I do not get emotionally involved when I see suffering on television.	2.5	5.6	0.04
18*	I would consider going to a counsellor if I had a problem.	2.3	-6.9	-0.09
19*	I believe that it is healthy to express one's emotions.	2.0	-0.2	-0.10
20	Getting upset over the death of a loved one does not help.	2.5	9.2	0.13

Table C1 - Liverpool Stoicism Scale with scores at start of SMRT and % change

	Liverpool Stoicism Scale start	Liverpool Stoicism Scale end
Top 25%	61-90	59-81
Below 75% above 50%	54-61	53-59
Below 50% above 25%	47-54	47-53
Bottom 25%	below 47	below 47
AVERAGE	53.8	52.8

Table C2 - SMRT participant scores for Liverpool Stoicism Scale

A score of 61 or more would have placed a participant in the top 25% for (lower-case) stoicism at the start of SMRT and 59-81 would have placed them in the top 25% at the end of SMRT.

Significantly, the average score for (lower-case) Stoicism actually dropped by 1 point.

Appendix D The Brief Resilience Scale

The Brief Reference Scale is a 6 item questionnaire frequently used to measure resilience

#	Item	Average adjusted score start of SMRT2020	% change at end of SMRT 2020	Correlation with SABS at start of SMRT 2020
1	I tend to bounce back quickly after hard times.	3.5	10	0.44
2*	I have a hard time making it through stressful events. *	3.2	14	0.45
3	It does not take me long to recover from a stressful event	3.2	14	0.40
4*	It is hard for me to snap back when something bad happens. *	3.2	13	0.45
5	I usually come through difficult times with little trouble.	3.1	15	0.40
6*	I tend to take a long time to get over setbacks in my life.*	3.3	14	0.46

Table D1 - SMRT participant scores for Brief Resilience Scale

Overall correlation with SABS of with resilience was .58

Average change was 13%

Quartile	Start of SMRT	End of SMRT
Top 25%	23-30	24-30
Below 75% above 50%	20-23	22-24
Below 50% above 25%	16-20	19-22
Bottom 25%	below 16	below 19
AVERAGE	19.5	21.8

Table D2 - SMRT quartile scores for Brief Resilience Scale

A score of 21 or more would have placed a participant in the top 25% for resilience at the start of SMRT and 24 or more would have placed them in the top 25% at the end of SMRT.

The average score for resilience increased by 2.3

Reference: Smith, B.W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P. and Bernard, J. (2008). The Brief Resilience Scale: Assessing the Ability to Bounce Back. *International Journal of Behavioral Medicine*, 15, 194-200.

Appendix E Stoic Attitudes and Behaviour Scale 5.0 (SABS 5.0)

#	Item	Reversed?	Average adjusted score start of SMRT 2020	% increase at end of SMRT 2020
1	I think about my life as an ongoing project to become a better person.	No	6.2	5.9
2	It can sometimes be a good thing to become angry at people.	Yes	3.7	15.5
3	If bad things happen to you, you are bound to feel distressed.	Yes	3.4	26.5
4	Having good understanding and good character is all that is required in order to be happy.	No	4.3	25.4
5	Viewing other people as fellow-members of the brother/sisterhood of humankind helps me to avoid feeling angry and resentful.	No	5.1	13.2
6	The universe is benevolent in its overall plan.	No	3.9	12.6
7	I regularly spend time reflecting on what is most important to enable me to live a good and happy life.	No	5.2	11.8
8	Bad luck could stop me being happy.	Yes	4.2	21.4
9	I do the right thing even when I feel afraid.	No	4.9	12.1
10	It is my duty to help others.	No	5.5	6.3
11	Sometimes a controlled experience of anger can be helpful in resolving conflicts with others	Yes	3.1	6.1
12	I usually do the right thing.	No	5.4	7.6
13	I do not act on urges when it would be unwise to act on them	No	4.4	12.7
14	I am committed to helping humanity in general.	No	5.3	9.0
15	I treat everyone fairly.	No	5.3	10.2
16	To flourish as a human being all you need is good character and understanding of what really matters in life	No	5.0	16.4
17	If things don't go well for my friends, I can't lead a good life.	Yes	5.1	5.2

18	I take active steps to reduce the suffering of others.	No	5.0	7.5
19	I spend quite a lot of time dwelling on what has gone wrong in the past.	Yes	3.7	26.1
20	It is possible to lead a happy life even after the death of someone we love.	No	6.0	4.2
21	The universe embodies wisdom.	No	4.6	9.6
22	When making an important decision I ask myself "What really matters here?"	No	5.4	10.9
23	I cannot really be harmed by what other people say.	No	4.4	25.5
24	The universe is a living thing.	No	4.9	4.4
25	I need quite a lot of money in order to be happy.	Yes	4.9	9.4
26	When I have a problem, I am good at taking constructive action in a timely manner.	No	4.8	9.6
27	We can't really control other people.	No	6.2	5.1
28	There is a rational and orderly plan in the universe and in the causes of events.	No	3.5	14.6
29	When making a significant decision I reflect on what a good role model would do.	No	4.4	19.7
30	Nothing except our judgements and voluntary actions are truly under our control in life.	No	6.0	8.3
31	I pay attention to my judgements about good or bad things or people as I am making them.	No	5.0	14.5
32	I need to be well thought of by others in order to be happy.	Yes	4.1	23.4
33	I spend quite a lot of time worrying about the future.	Yes	3.5	29.0
34	It is good to think about life as an ongoing journey towards becoming a better person.	No	6.2	4.9
35	I am committed to helping my friends.	No	5.6	5.6
36	I pay attention to my thoughts about what I intend to do before I act on them.	No	5.1	10.8
37	I want to become a better person ethically.	No	6.3	3.2
38	When a negative thought enters my mind, I remind myself that it is just an interpretation of the situation.	No	4.6	22.4
39	It is right to feel intense and overwhelming grief after a significant loss	No	2.6	19.2

40	I view other people as fellow-members of the brother/sisterhood of humankind.	No	5.2	10.5
41	If things don't go well for me, I can't lead a good life.	Yes	4.7	13.2
42	I can't control how I feel.	Yes	4.8	8.8
43	I need to be in good health in order to be happy.	Yes	3.6	21.7
44	I am committed to helping my family.	No	6.0	2.3
45	Every day I spend some time thinking about how I can best face challenges in the day ahead.	No	4.5	20.5
46	Our voluntary actions are among the only things truly under our control in life.	No	5.9	8.4
47	As long as you have the right attitude, you can lead a good life even in the most difficult circumstances.	No	5.7	8.9
48	Even when I can't do anything more about a problem, I still worry about it a lot.	Yes	3.4	35.4
49	I care about the suffering of others	No	5.7	2.7
50	I often do what I feel like doing rather than doing what I believe to be the right thing.	Yes	4.2	14.1
51	Our judgements are amongst the only things truly under our control in life.	No	5.6	10.7
52	I see my happiness as fully compatible with caring for other people.	No	5.4	6.2
53	The best idea is to give up trying to control people and instead focus on our own actions and our judgements and character.	No	6.3	5.2
54	There is no overall plan to the universe.	Yes	3.2	10.5
55	I think about what the ideal wise and good person would do when faced with misfortunes in life.	No	4.5	17.7
56	If things don't go well for my family, I can't lead a good life.	Yes	4.3	17.1
57	I am committed to helping in my local community.	No	4.6	11.1
58	It does not help me to get angry	No	5.6	5.3
59	It is possible to lead a happy life even when we have lost success or wealth.	No	5.6	7.8
60	We can sometimes influence how others behave, but we can't completely control other people.	No	6.3	2.8

	Total Score		292->325	13%
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Table E1 - SMRT participant scores for SABS 5.0

Instructions to Stoic Week participants

For each of the above items, please mark on a 7-point Likert scale whether you agree with it from Strongly Agree (7) to Strongly disagree (1) as follows:

Strongly Agree 7

Agree 6

Slightly Agree 5

Neither agree or disagree 4

Slightly disagree 3

Disagree 2

Strongly Disagree 1

Please respond according to what you yourself think, not what you think the answer ought to be or what you ought to think.

SCORING

To obtain the scores for reverse-coded items, subtract the score from 8 (e.g., a score of 7 becomes 1).

The higher the score, the more Stoic your attitudes and beliefs are. The possible scores range from 60 (minimum Stoic) to 480 (maximum Stoic).

SABs scores	SMRT 2020 start	end
Top 25%	315-420	352-420
Below 75% above 50%	290-315	328-352
Below 50% above 25%	267-290	305-328

Bottom 25%	below 267	below 305
AVERAGE	292	325

Table E2 - SMRT quartile scores for SABS

Appendix F: The Satisfaction with Life scale

The SWLS is a short 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. This scale is widely used as part of the measure of Subjective Well-being (also known as happiness).

Question	Theme
Q1. In most ways my life is close to my ideal	Life is ideal
Q2. The conditions of my life are excellent	Externals met
Q3. So far, I have got the important things I want in life.	Needs met
Q4. I am satisfied with my life	Satisfaction
Q5. If I could live my life over, I would change almost nothing	Acceptance

Using a 1-7 Likert scale, users score between 35 (extremely satisfied) and 5 (extremely dissatisfied)

#	Item	Average score start of SMRT2020	% change at end of SMRT 2020	Correlation with SABS at start of SMRT 2020
1	In most ways my life is close to my ideal.	4.4	15	0.39
2	The conditions of my life are excellent	5	9	0.33
3	So far, I have got the important things I want in life	4.8	11	0.35
4	I am satisfied with my life	4.7	13	0.43
5	If I could live my life over, I would change almost nothing	3.6	23	0.37
	All Items	22.5	14	.45

Table F1 - SMRT participant scores for Satisfaction with Life

SWL scores	Start	End
Top 25%	28-35	30-35
Below 75% above 50%	23-28	27-30
Below 50% above 25%	18-23	23-27
Bottom 25%	below 18	below 23
Average	22.5	26.0

Table F2 - SMRT quartile scores for Satisfaction with Life

The SWL scale was developed by Ed Diener, Robert A. Emmons, Randy J. Larsen, and Sharon Griffin as noted in the 1985 article in the *Journal of Personality Assessment*. See <http://internal.psychology.illinois.edu/~ediener/SWLS.html>

Appendix G: The Flourishing Scale

The Flourishing Scale is a brief 8-item summary measure of the respondent's self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism. The scale provides a single psychological well-being score. This scale was developed by Ed Diener and associates to measure a broader conception of well-being than purely subjective life satisfaction and the presence of positive and absence of negative emotions.

#	Flourishing Scale Item	Average score start of SMRT2020	% change at end of SMRT 2020	Correlation with SABS at start of SMRT 2020
1	I lead a purposeful and meaningful life.	4.7	16	0.5
2	My social relationships are supportive and rewarding.	4.8	13	0.4
3	I am engaged and interested in my daily activities.	5.1	11	0.5
4	I actively contribute to the happiness and well-being of others.	5.1	10	0.5
5	I am competent and capable in the activities that are important to me	5.4	7	0.5
6	I am a good person and live a good life.	5.4	8	0.5
7	I am optimistic about my future.	5.2	11	0.5
8	People respect me.	5.2	7	0.4
	All Items	40.9	10	.6

Table G1 - SMRT participant scores for Flourishing

The Average score for the Flourishing at the start of SMRT 2020 was 40.9 (at the start of Stoic Week 2019 it was 43)

Flourish	Start	End
Top 25%	47-56	51-56
Below 75% above 50%	42-47	47-51
Below 50% above 25%	36-42	43-47
Bottom 25%	below 36	below 43
Average	40.9	46.1

Table G2 - SMRT quartile scores for Flourishing Scale

Reference: Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research*, 39, 247-266.

<http://internal.psychology.illinois.edu/~ediener/FS.html>

Appendix H: The Scale of Positive and Negative Emotions (SPANE)

The SPANE is a 12-item questionnaire that includes six items to assess positive feelings and six questions to assess negative emotions. For both the positive and negative items, three of the items are general (e.g., positive, negative) and three per subscale are more specific (e.g., joyful, sad). Along with the Life Satisfaction Scale, the presence of positive and absence of negative emotions forms the other part of Subjective Well-being. Users are asked to select a number between 1 (very rarely or never) and 5 (very often or always) to indicate how often they have experienced the emotion in the last 4 weeks.

Positive Emotions

#	SPANE Scale Item	Average score start of SMRT2020	% change at end of SMRT 2020	Correlation with SABS at start of SMRT 2020
1	Positive	3.6	9.8	0.4
2	NEGATIVE	-3.0	-15.9	0.4
3	Good	3.6	9.2	0.4
4	Bad	-2.6	-14.2	0.4
5	Pleasant	3.6	9.0	0.4
6	Unpleasant	-2.6	-12.7	0.3
7	Happy	3.4	11.3	0.4
8	Sad	-2.6	-16.3	0.3
9	Afraid	-2.4	-16.5	0.3
10	Joyful	3.0	13.3	0.4
11	Angry	-2.6	-15.9	0.3
12	Contented	3.3	14.9	0.4
	SPANE POSITIVE ITEMS	20.7	11.2	.4
	SPANE NEGATIVE ITEMS	-15.4	-15.2	.4
	All Items	5.3	(86%)	.5

Table H1 - SMRT participant scores for SPANE

SPANE	Start	End
Top 25%	10-24	15-24
Below 75% above 50%	5-10	10-15
Below 50% above 25%	-1-5	5-10
Bottom 25%	below -1	below 5
Average	5.3	9.9

Table H2 - SMRT quartile scores for SPANE

The Average score for the SPANE at the start of SMRT was 4.6 (compared with 5 at the start of Stoic Week 2019)

Reference: Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research*, 39, 247-266.

<http://internal.psychology.illinois.edu/~ediener/SPANE.html>

ⁱ See for example <https://donaldrobertson.name/2018/01/03/whats-the-difference-between-stoicism-and-stoicism/>

ⁱⁱ <https://journals.sagepub.com/doi/pdf/10.1177/1363459312451179>

ⁱⁱⁱ <https://academic.oup.com/bmb/article-abstract/46/1/279/265425>

^{iv} <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1471-6712.2006.00407.x>

^v <https://www.learningrevolution.net/online-course-retention-rate/>

^{vi} It is very probable that if only a small percentage of people complete the questionnaires, then those who have benefitted a lot will be over-represented, since those who do not benefit are less likely to fill in the questionnaires at the end of the programme.