

Physical activity behaviours and functional difficulties

15th October 2019 2pm (Finnish time)

UKK institute Webinar

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Outline

- Background
- Methods
- Results
- Discussions



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Background to Finnish adolescents functional difficulties

- Between 10-20% of children in general schools have some sort of disabilities (Ng, 2016)
- Ways to measure disability among children in general schools have evolved from a medical approach (diagnosis → stigma) to a functional approach (capabilities → ICF)
- The Washington group on disability statistics with UNICEF created the Child Functioning Module to create standardised way of measuring disabilities (Cappa, 2018)

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Physical Activity Behaviours and Functional Difficulties

- Given the important role of physical activity in the prevention of non-communicable diseases, targeting children with disabilities is a top academic priority
- Few studies are available that can shed light on how adolescents with functional limitations report their physical activity behaviours in a comparative way with other methods used in national and international reports
- Therefore, the Finnish School-aged Physical Activity (SPA) study was designed to provide a national monitoring tool to assess physical activity, also among children and adolescents with functional limitations

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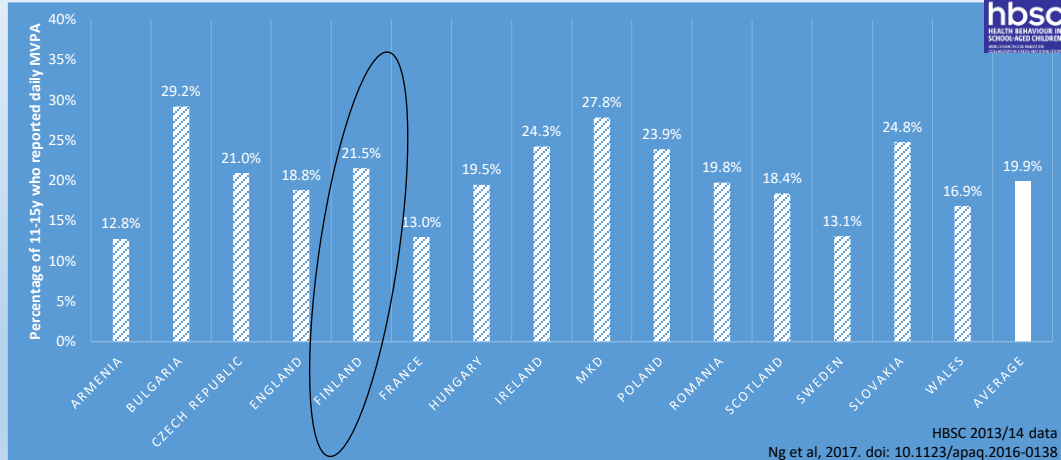
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Meeting PA daily recommendations the all adolescents with disabilities



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HBSC 2013/14 data

Ng et al, 2017. doi: 10.1123/apaq.2016-0138

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Trends of 7 days MVPA(left) and 5 days MVPA (right)

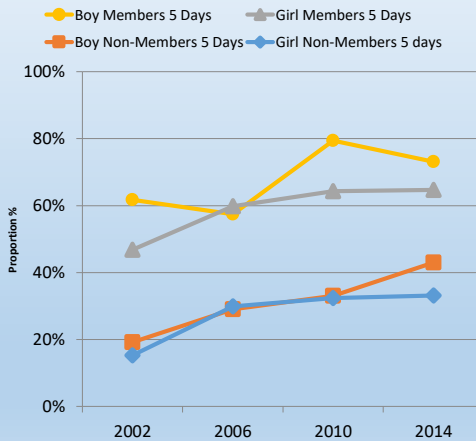
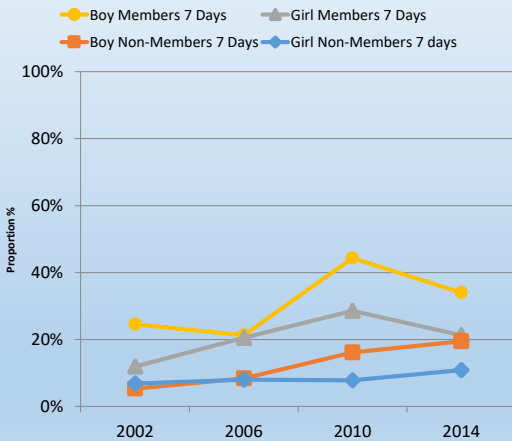


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Finnish HBSC 2002-14 data

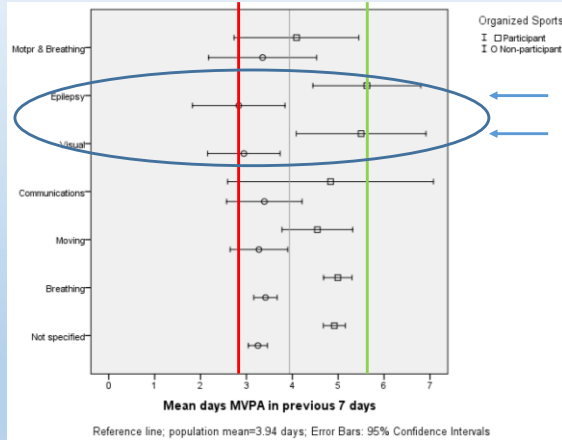
Ng et al, 2016. doi: 10.1123/jpah.2015-0539



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Non categorical approaches needed for developing strategies/interventions



- Adolescents who participate in organised sports take part in more days of MVPA
- There is a variety depending on the categories of disabilities and more research is needed to describe the physical activity behaviours of adolescents with functional difficulties

Finnish HBSC data 2013/14
 Ng et al, 2017. doi:[10.3390/sports5040081](https://doi.org/10.3390/sports5040081)

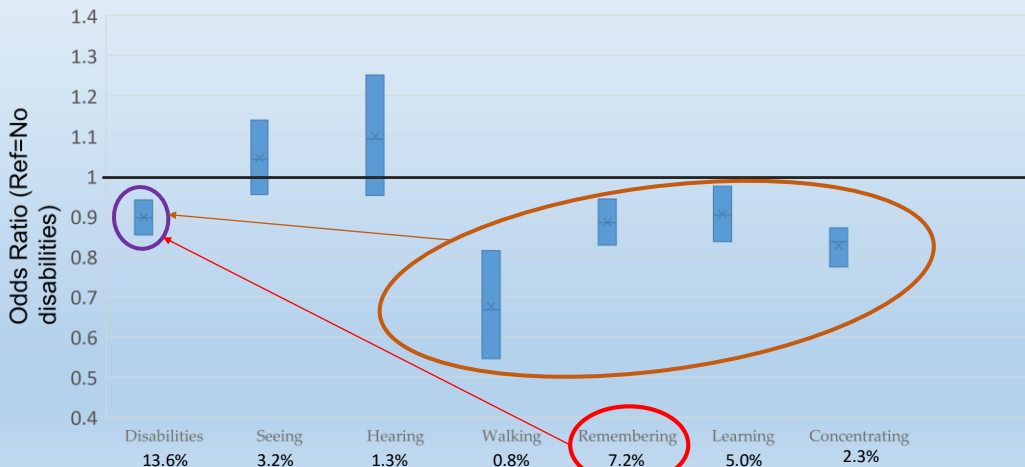


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Functional Difficulties and Physical Activity

Finnish Health Promotion Study 2017 data. Ng et al, 2019



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Purpose of this presentation

- To report the physical activity behaviours of adolescents with functional difficulties
- To disaggregate the key outcomes from the F-SPA (Liitu) study by disabilities
- To report differences in physical activity behaviours between males and females with disabilities
 - Overall self-reported physical activity levels
 - Prevalence of NOT excessive screen-time
 - Participation in organized sports
 - Prevalence of sufficient sleep during school days

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Methods

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Study Methods

- **Sample Procedures:** National Representative sample based on Probability Proportion to Size for 11y, 13y, and 15y olds in Finland
 - Exclusion: Special Schools. Data not used from 7y and 9y olds.
- **Data Collection:** Spring 2018 online survey
- **Disability Disaggregation level:** “A lot of difficulties” or “cannot do”
- **Self-report Measures:**
 - Physical Activity – PACE+ (Single item), 7 day cut-off
 - Days in last week where screen time was 2 hour or more
 - Average Sleep and awake time during the week. Converted into 8hr cut off
 - Participation in Organisation sports outside of school
- **Analyses:** Adjusted Binary Logistic Regressions (age, SES), stratified by gender (star indicates statistical significance $p < .05$)

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Measures of Functional difficulties

2016 F-SPA– Modified Washington Group	2018 – Child Functioning Module	Application for 2018 data
Seeing	Seeing	Vision Domain
Hearing	Hearing	Communications Domain
	Being Understood	
Moving	Walking 100m	Not used (n=38)
	Self-care	Self-care (not in report)
	Learning	Cognitive Domain
Remembering	Remembering	
Concentrating	Concentrating	Social-behaviour
	Changes to routine	
	Controlling Behaviour	
	Making Friends	
Breathing		Not used



Results

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Toimintarajoiteluokkien yleisyys iän ja sukupuolen mukaan.

	11 -v			13 -v			15 -v		
	0	1	2+	0	1	2+	0	1	2+
Poika %	87	9	4	86	10	4	85	10	5
N*	554	54	27	393	44	21	453	53	27
Tyttö %	87	9	4	76	15	9	75	17	8
N	601	62	26	366	73	44	409	96	43

*N=2, kaksi poikaa ei ilmoittanut ikäänsä.

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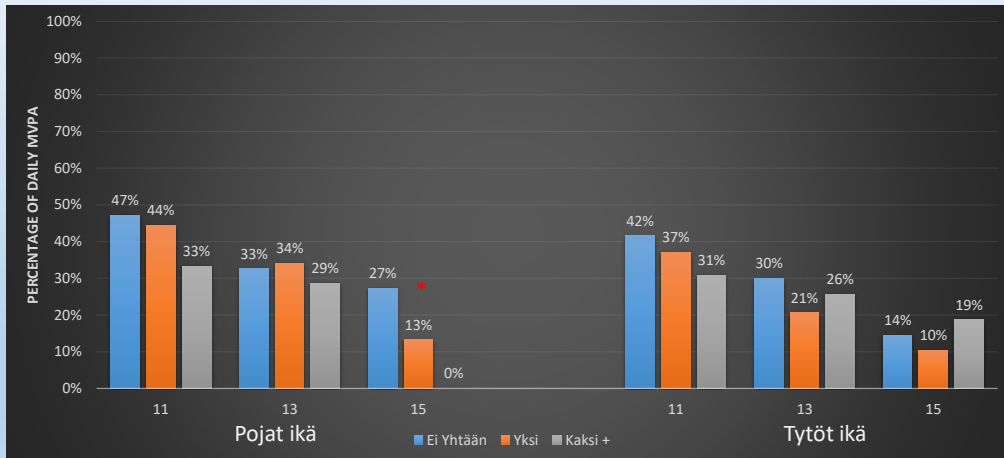
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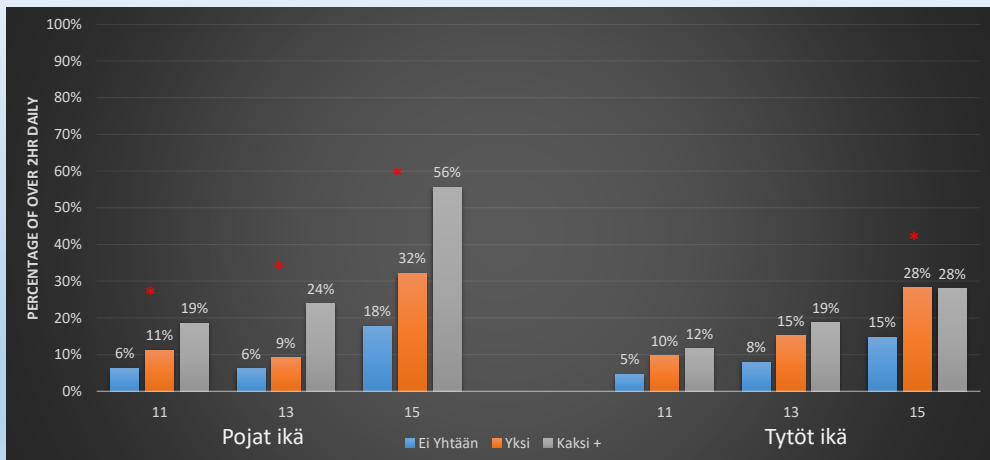
Toimintarajoiteluokkien mukaan liikuntasuosituksen saavuttaneiden poikien ja tyttöjen osuudet eri ikäryhmissä (%).



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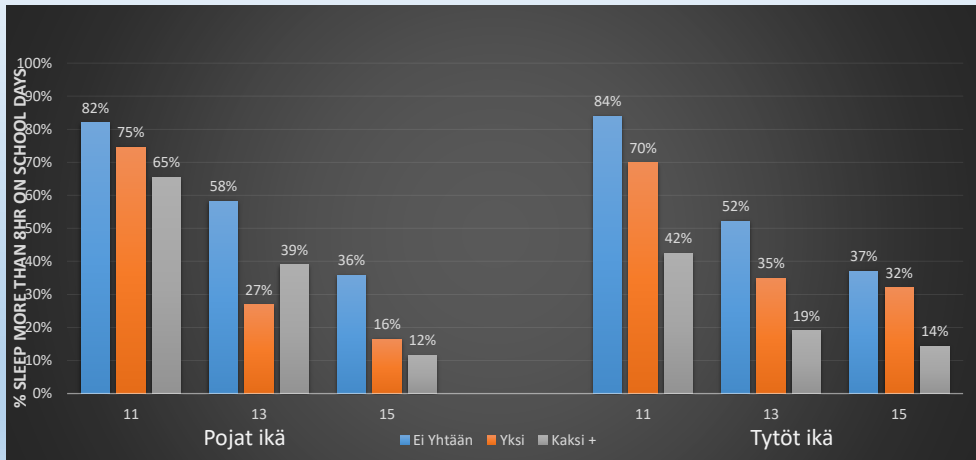
Toimintarajoiteluokkien mukaan yli kahden tunnin ruutuajan toteutuminen pojilla ja tytöillä eri ikäryhmissä (%).



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Arkipäivien aikana yli 8 tunnin yöunet nukkuneiden poikien ja tyttöjen osuudet eri ikäryhmissä toimintarajoiteluokkien määrän suhteen (%).



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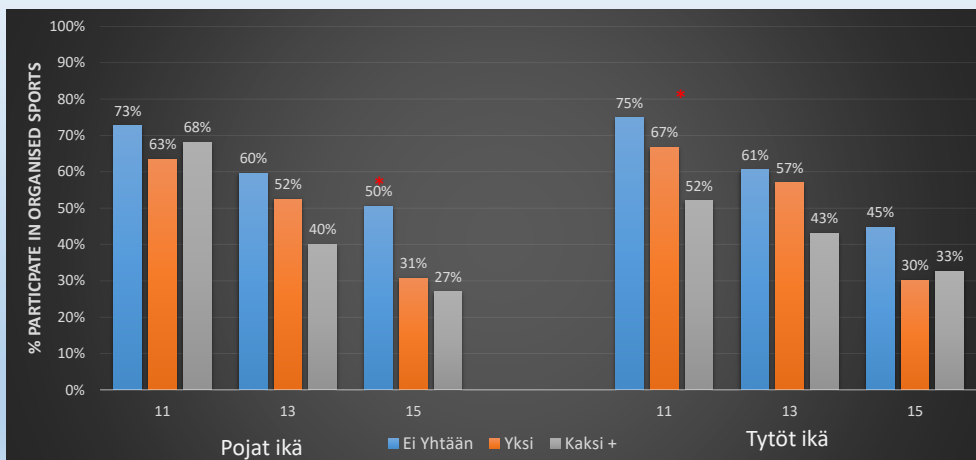


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Urheiluseurassa liikuntaa harrastavien poikien ja tyttöjen osuudet toimintarajoiteluokkien määrään suhteutettuna (%).



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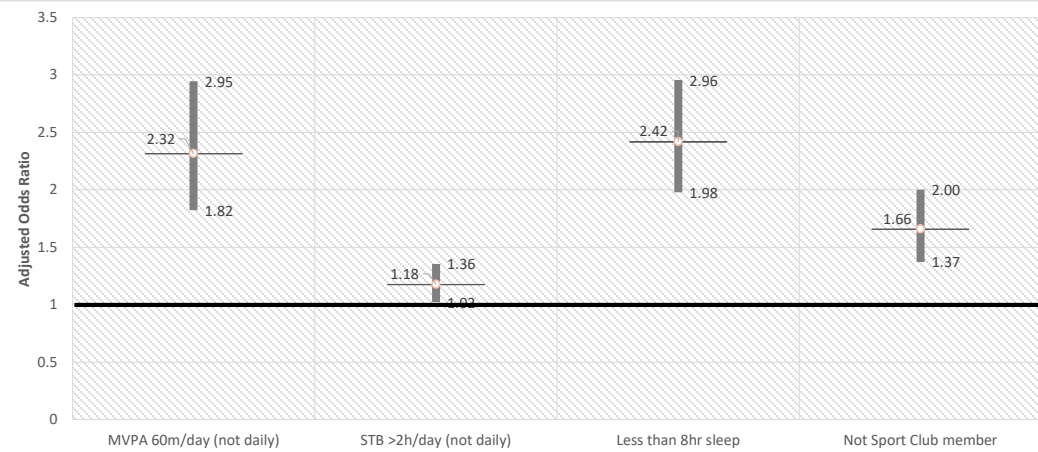


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All disabilities v no disabilities (ref)

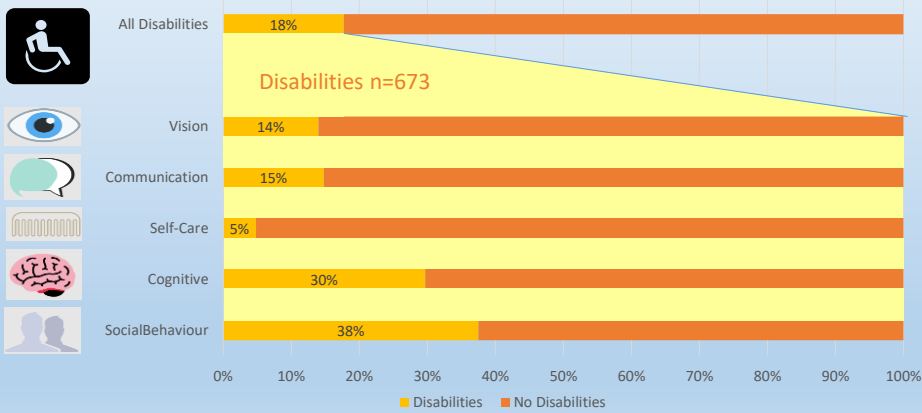


Inverted for positive OR

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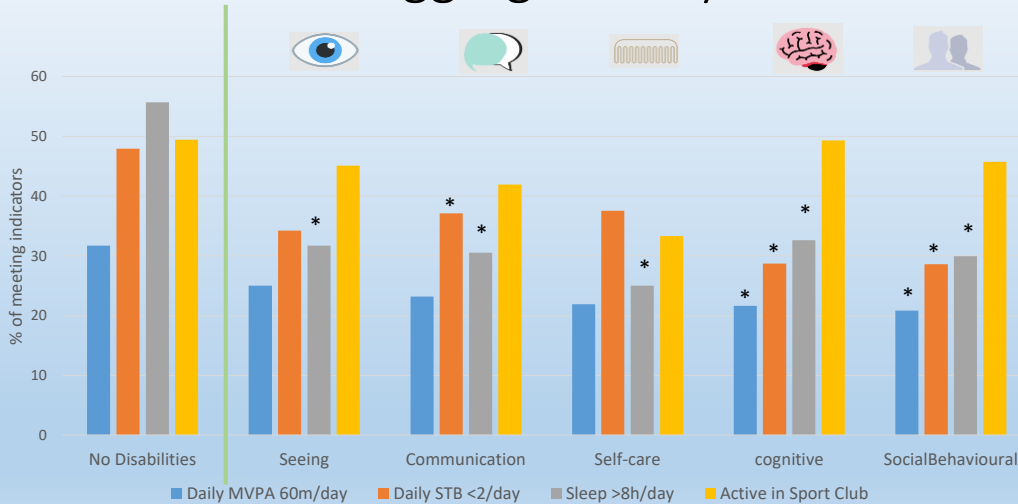
Disability Prevalence (n=3795)



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Results after Disaggregation by Disabilities



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Conclusions

- Young adolescents with disabilities in Finland were
 - less physically active,
 - spent more time on screens,
 - slept less and
 - fewer took part in sport clubs
- than their **peers without disabilities**.
- Differences between disability groups were minimal for each indicator
- Health promotion activities need to take into account the variation in disabilities and consider using the biopsychosocial framework (i.e. WHO ICF) in the programs.

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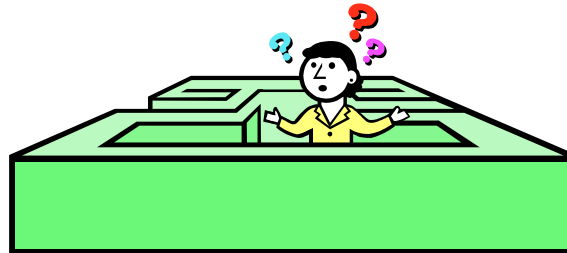


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Lasten ja nuorten
liikuntakäyttäytyminen Suomessa

LIITU-tutkimuksen tuloksia 2018
VALTION LIIKUNTANEUVOSTON JULKAISUJA 2019:1
Sami Kokko ja Leena Martin (toim.)

Seinällä kiipeily
ehdottomasti
KIEPEITY.
10/15/2019



References

- Slide 3
 - Ng (2016) Doctoral Thesis – JYU
 - Cappa et al, 2018. doi: 10.1016/j.dhjo.2018.06.004
- Slide 5
 - Ng et al (2017). doi: 10.1123/apaq.2016-0138
- Slide 6
 - Ng et al (2016). doi: 10.1123/jpah.2015-0539
- Slide 7
 - Ng et al (2017). doi: 10.3390/sports5040081
- Slide 8
 - Ng et al (2019). doi: 10.3390/ijerph16173156

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