

6DPSOH	9DULDEOH	7RRO	5HFDOO 3HULRG
\$GROHVFHQWV	'HPRJUDSKLFV DQG PHGLFDO	6SDQLVK SURWRFR	\$W SUHVHQW
	3V\FKRORJLFDO VWDWXV	.,'6&5((1 GLPHQVLRQV 3V\FKRORJLFDO ZHOH EHLQJ ORRG DQG HPRWLRQV 6HOI SHUFHSHWRQ	\$W SUHVHQW
	&RSLQJ	\$&6	5HWURVSHFWLYHD
	&DQFHU UHODWHG GLVWUHV	LWHP 1XPULF VFDOH	5HWURVSHFWLYHD
3DUHQWV	*HQHUDO VWUHV	366	\$W SUHVHQW
	&DQFHU UHODWHG GLVWUHV	LWHP 1XPULF VFDOH	5HWURVSHFWLYHD
		LWHP 1XPULF VFDOH	\$W SUHVHQW

5HWURVSHFWLYH DVVHVPHQW EDVHG RQ WKH ZRUVW PRPHQW GXULQJ KRVSLOWDOLJDWLRQ IRU FDQF
3HUFHLYHG 6WUHV 6FDOH LWHPV

7DEOH \$VVHVPHQW WRROV

\$GROHVFHQWV

'HPRJUDSKLFV DQG PHGLFDO GDWD

6RFLR GHPRJUDSKLFV JHQGHU DJH PHGLFDO GDWD RQFRORJLFDO GLDJQRVLV WUDQVSDQW UHODSVH WLPD SDVYH WKHLU SDUHQWV LQ D MRLQW VHPL FRUURERUDWHG DQG FRPSOHWHG PHGLFDO UHFRUGV

3V\FKRORJLFDO VWDWXV DW SUHVHQW

3V\FKRORJLFDO VWDWXV RI VXUYLYLGLPHQVLRQV RI WKH 6SDQLVK VHOI.,'6&5((1 TXHVWLRQV LWHPV LQ VXEVFDOHV PRRG DQG HPRWLRQV KRPH OLIH VRFDO VXSSRUW DFFHSDQFH SUHVHQW UHVHDFK HPRWLRQV DQG VHOI SHUFHSHWRQ GLPHQVLRQV DJH DQG JHQGHU &URQEDFKdV \$OSKD YDOXHV IRU UHVSHFWLYHO\

VWUDWHJLHV FRXOG EH FROODSVHG LQWURJUDSKLFV FRSLQJ FRSLQJ LQ UHIHUHQFH FRSLQJ H \$&6 SURYLGHV > @ &URQEDFKdV DOSKD IRU WKH WKUHQXVLRQ ZHOH LOOQ RYUHQH OH SHUHQVLRQ ZHOH LQHUHQVLRQ SURSHUHQVLRQV DJH DW WKH WLPD SDVYH WKHLU SDUHQWV LQ D MRLQW VHPL FRUURERUDWHG DQG FRPSOHWHG PHGLFDO UHFRUGV DW SUHVHQW RI WKHLU KRVSLOWDOLJDWLRQ HISHULHQFH WKLQ EDFN DQG IRFXV RQ GLPHQVLRQV RI WKH 6SDQLVK VHOI.,'6&5((1 TXHVWLRQV LWHPV LQ VXEVFDOHV PRRG DQG HPRWLRQV KRPH OLIH VRFDO VXSSRUW DFFHSDQFH SUHVHQW UHVHDFK HPRWLRQV DQG VHOI SHUFHSHWRQ GLPHQVLRQV DJH DQG JHQGHU &URQEDFKdV \$OSKD YDOXHV IRU UHVSHFWLYHO\

&RSLQJ GXULQJ FDQFHU

&RSLQJ ZDV DVVHVPHG ZLWK WKH 6SDQLVK VHOI &RSLQJ 6FDOH \$&6 LV D VHOI UHSRUW FKHFNOLVW VFRUH RQ D SRLQW /LNHW VFDOH GRQdW GR LW WR XVHG D JUHDW GHDO VWUDWHJLHV E\ DGROHVFHQWV LQ GHDOLQJ ZLWK VWUHV +LJKHU VFRUH LQGLJKKHU XVH RI WKHVH FRSLQJ VWUDWHJLHV VWUDWHJ\ UDUHO\ XVHG XVHG IUHTXHQWO\

H OHYHO RI SHUFHLYHG VWUHV ZDV YHUVLRQ > @ RI WKH 3HUFHLYHG UHSRUW RYUHQVLRQV WKH \$GROHVFHQWV WKH 6SDQLVK VHOI &RSLQJ 6FDOH \$&6 LV D VHOI UHSRUW FKHFNOLVW VFRUH RQ D SRLQW /LNHW VFDOH GRQdW GR LW WR XVHG D JUHDW GHDO VWUDWHJLHV E\ DGROHVFHQWV LQ GHDOLQJ ZLWK VWUHV +LJKHU VFRUH LQGLJKKHU XVH RI WKHVH FRSLQJ VWUDWHJLHV VWUDWHJ\ UDUHO\ XVHG XVHG IUHTXHQWO\

6HOI SHUFHLYHG HPRWLRQDO GLVWUHVV ZLWK UHJDUG WR FDQFHU DQG
RYHUFRPH WKH KDUGHVW PRPHQWV RI WKH GLVHDVH

7R DVVHV VHOI SHUFHLYHG HPRWLRQDO GLVWUHVV DQG
VLWXDWLRQV GXULQJ KRVSLWDOL]DWLRQ RI WKHLU FKLOG D LWHP QXPHULF VF
ZDV GHYHORSHG DVVHVHG VHOI SHUFHLYHG GLVWUHVV LQ WKH
KDUGHVW PRPHQWV RI WKHLU FKLOG KRVSLWDOL]DWLRQ SHULRG \$FFRUGLQJ W
\RXU SHUFHLSWLRQ WKLQN EDFN DQG IRFXV RQ WKH KDUGHVW PRPHQWV \RX
KDYH H[SHULHQFHGXULQJ \RXU FKLOG KRVSLWDOL]DWLRQ DQG UDQN KRZ EDG
GLG \RX IHHO IURP QR GLVWUHVV YHU\ GLVWUHVVHG
LWHP KDG WKH VDPH VWUXFWXUH KRZHYHU LW ZDV IRFXVHG RQ WKH VHOI
SHUFHLYHG RYHUFRPH ZLWK WKH SHULRG SUHYLRXVO\
LGHQWL]HG PRPHQW LW WDNH WR \RX WR EHDU RU RYHUFRPH
VXFKLWXDWLRQV "HYFRPH QD WUHPHQGRXV
HvRU, ERWK FDVHV WKH VFRUH ZDV REWDLQHG IRU HDFK LWHP IURP WKH
GLUHFV YDOXH UDWHG E\ WKH SDUHQW &URQEDFKdV \$OSKD ZDV

&DQFHU UHODWHG GLVWUHVV

7R DVVHV SHUVLVWHQFH RI FDQFHU UHODWHG GLVWUHVV LQ VXUYLYRUVKLS LQ
VDPH RI SDUHQW D LWHP QXPHULF VDOH ZDV GHYHORSHG WR VFUHHQ
WKH GHJUHH RI ZRUU\ IUHTXHQF\ RI WKRXJKW DQG LQWHUHQFH RI
WKHVH ZRUULHV LQ WKH SDUHQW GDLO\ URXLQHV ,WHPV ZHUH WKH IROORZLO
&XUHQWO\ KRZ FRQFHUQHG DUH \RX UHJDUGLQJ \RXU FKLOGdV FDQFHU" IURP
1RW DW DOO WR \$ ORW &XUHQWO\ KRZ PXFK GR \RX WKLQN DERXW
\RXU FKLOGdV FDQFHU" IURP 1HYHU WR \$ ORW VHYHUDO WLPHV SHU
GD\ DQG &XUHQWO\ KRZ PXFK GLVWUHVV ZRXOG \RX VDI\ LV FDXVLQJ \RX
DOO WKLV FDQFHU UHODWHG GLVWUHVV IURP 1RW DW DOO WR \$ ORW
REWDLQHG &URQEDFKdV \$OSKD ZDV

3URFHGXUH

6XUYLYRUV HOLJLEOH IRU WKH VWXG\ ZHUH FRQWDFWHG YLD WHOHSCRQH E\
TXDOWHG HDUFKHU LQ SV\FKRORJ\ ,Q WKLV LQLWDO FRQWDFW WKH ZHUH
LQIRUPHG DERXW WKH XUSRVH RI WKH VWXG\ DQG DVNHG IRU SDUWLFLSDWLRQ
WKH\ DJUHHG WR SDUWLFLSDWH DQ DVVHVPHQW DSSRLQWPHQW ZDV VFHGXOH
H DVVHVPHQW ZDV FRQGXFWHG E\ WKH PDLQ UHVHDUFKHU RI WKLV VWXG\ LQ
D KRVSLWDOL]DWLRQ PLQXWH VHVLRQ \$W WKH IDFH WR IDFH DVVHVPHQW
DSSRLQWPHQW WKH SV\FKRORJLV SURYLGHG RUDO DQG ZULWWHQ LQIRUPDWLRQ
DERXW WKH VWXG\ DQG LQIRUPHG FRQVHQW ZDV REWDLQHG 'HPRJUDSKLFV
DQG PHGLFDO GDWD ZHUH FROOHFWHG MRLQWO\ ZLWK WKH SDWLHQW DQG WK
SDUHQW RU WKH SDUHQW SDUHQW SDUHQW SDUHQW ZLWK
KRVSLWDOL]DWLRQ UHFRUGV)LQDOO\ SDUHQWV ZHUH UHTXHVHG WR UHPDLQ LQ WK
ZDLWLQJ URPRQGWKRLU TXHDSRQDOL]DW
LQVWUXFWLRQV VLPXOWDQHRXVO\ WKH SDWLHQW LQGLYLGXDOO\ DQVZHUHG W
TXHVWLRQQDLUHV \$W WKH HQG RI WKH DVVHVPHQW WKH UHVHDUFKHU DQG W
DGROHVFHQW JDWKHUHG DJDLQ WKH SDUHQW DQG GLVFXVVHG SRVVLEOH LVVX
UDLWGHFRPSOHWLRQ RI WKH TXHVWLRQQDLUHV EHIRUH FORVLQJ WKH
DVVHVPHQW DSSUR[LPDWHO\
PLQXWHV

'DWD DQDO\VLV

'HVFULSWLYH VWDWLWLVFV ZHUH SHUIRUPHG IRU DOO YDULDEOHV FRQVLGHUH
GHPRJUDSKLFV DQG PHGLFDO GDWD SV\FKRORJLVFDO LPSDFW VHOHFWHG
GLPHQVLRQV RI +54R/ FRSLQJ FDQFHU UHODWHG GLVWUHVV GXULQJ
KRVSLWDOL]DWLRQ DQG LQ VXUYLYRUVKLS SHULRG DQG JHQHUDO VWUHVV 0XOW
OLQH DUH UHJUHVVRQ DQDO\HV VWHSZLVH ZHUH SHUIRUPHG WR LQYHVWLJDWH
H[SODQDWRU\ YDOXH RI VHOHFWHG LQGHSHQGHQW YDULDEOHV WKH EDVLF FRS
V\OHV IRU DGROHVFHQW SURGXFWLYH FRSLQJ FRSLQJ LQ UHIHQFH WR RWK

1 R

5HODSVH

<HV

1 R

6HFRQG PDOLJQDQFLHV

<HV

1 R

0HDQ6' 5DQJH

\$JH PHDQ 6' ±

\$JH DW ILUVW GLDJQRVLV PHDQ 6' ±

7LPH LQ \HUV VLQFH ILUVW GLDJQRVLV PHDQ 6'

DDFXUDWH IROORZ ~~SS~~URDFK@ZRXOG HQKDQFH SRVLWLYH

<DJFL .%SHON\%] & .%SHOL 6 %%\%NSDPXN©X 0 +HDOWK
UHODWHG TXDOLW\ RI OLIH LQ SHGLDWULF FDQFHU VXUYLYRUV D PXOWLIDFWRULDO
DVVHVVPHQW LQFOXGLQJ SDUHQWDO IDFWRUV - 3HGLDWU +HPDWRO 2QFRO